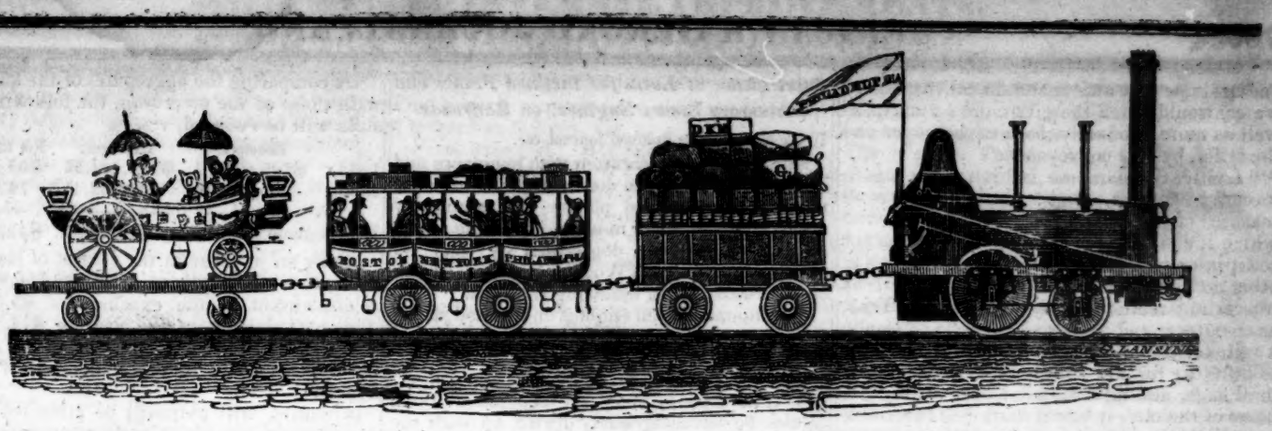

AMERICAN RAILROAD JOURNAL,
AND ADVOCATE OF INTERNAL IMPROVEMENTS.

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CONTENTS:

Editorial Notices; Erie Railroad; Long Island Railroad; Thames Tunnel; To preserve Wood from Decay, Dry Rot, &c.....page 785
A Society of Civil Engineers, &c.; Substitution of Locks for Inclined Planes and Stationary Steam Engines, on Railroads; Annual Report of the Superintendent of Transportation of the Baltimore and Ohio Railroad Company..... 786
Junction of the Rhine with the Danube; Improvement in Tanning; Blasting Rocks; Coffee, &c..... 789
Travelling Balloon or Flying Machine..... 790
The Principles and Practice of Constructive Carpentry; Mahomedan Months; Tenacity of Life..... 791
Stephenson's Patent for Certain Improvements in Locomotive Steam Engines, &c..... 792
Literary Notices..... 794
Foreign Intelligence..... 796
Summary..... 797
Poetry; Advertisements, &c.....799–800

AMERICAN RAILROAD JOURNAL, &c.

NEW-YORK, DECEMBER 20, 1834.

☞ TWO numbers more will complete the 3d volume of the Journal. *Shall it be continued through another year?*—Ed.

D. S., of 12th and 14th instant, received—that of a previous date referred to not received.

In this number will be found the report of W. Woodville, Esq., superintendent of transportation on the Baltimore and Ohio Railroad, which, with those before published, shows the condition of that important work, and gives a complete history of the construction and utility of railroads.

Erie Canal.—Amongst numerous other documents on hand, to which we shall give early attention, is the report of the Canal Commissioners, accompanied by that of the Engineer, H. Hutchinson, Esq., made during the last session of the legislature, relative to the construction of a new aqueduct at Rochester, and of doubling the locks east of Syracuse. This is an important document, and ought to be more generally disseminated, especially at this period, when efforts are making to effect a communication between the Lakes and the Hudson upon a more magnificent scale.

We shall also give, at an early period, the Report made by the Committee of Assembly of this State during its last Session, on the "petition of inhabitants of the county of Oswego," together with the letter of Benjamin Wright, Esq. annexed thereto. They have been only a few days in our possession, or they would have been published before.

Stephenson's Improved Locomotive, referred to in our last, an account of which, with engravings, is given in this number, will probably arrest the attention of those who are interested in railroads. Will American engineers favor us with their views of the improvement?

Important to Railroad and Bridge Builders.—We are indebted to Mr. Shepherd, a gentleman well known among men of science, especially for his extensive mineralogical researches, for the following very interesting communication. It will undoubtedly receive attention from the friends of railroads.

On preserving Wood from Decay. Dry Rot, &c.

Fredericksburg, Va., Nov. 10, 1834.

To the Editor of the Railroad Journal, &c.

Sir,—In answer to your inquiry, for "a cheap and an effectual method of preserving wood from decay, and destruction by worms, dry rot, &c." I have resumed a course of experiments on this subject, which I commenced in the summer of 1830; and trust that I shall soon be able to satisfy the public that the thing is both practicable and economical. I find my experiments confirmed, in my own mind, at least, by a careful examination of the petrifying earths and waters of Virginia. We have only to follow in the simple path of nature, and we see at once how the operation is performed. I will not at this time enter into the nature and cause of the dry rot, &c. Whether it is a little fungus, that lives and derives its nourishment from the tree within, as the mistletoe does from the tree without—or whether it is a chemical change, produced by absorption of moisture,—I leave for others to determine. It is sufficient to say that there is a principle of decay in most timber, which is more or less active whenever the wood is exposed to the atmosphere and moisture. There is also a saccharine principle, which is the food of worms; and there is also a process of fermentation which hastens its destruction.

This fermentation must be prevented—this saccharine principle must be destroyed—and the pores of the wood must imbibe some material which will effectually fortify it against moisture and the chemical action of different earths and atmospheres. The process by which I effect this is comparatively cheap and simple. I have obtained a patent for the same, and am now ready to receive proposals for furnishing timber of all descriptions for purposes where durability is especially required. If the timber does not answer the end proposed, or endure a certain number of years, according to contract, I will engage, and give security, to refund the amount expended in the experiment.

Some specimens of sapling pines, which I have carried through the process of preservation, and which have since been exposed, are now without the least appearance of decay, while the remainder of the same tree, alike exposed, is already in ruins.

Very respectfully, yours,

Forrest Shepherd.

Long Island Railroad.—We have received a small pamphlet, containing, with other information, the Reports of the Engineers on the Practicability of the Long Island Railroad. One of the Engineers, Wm. C. Young, observes that, "as there will occur on the grading no rock excavation, or bridges more important or costly than a class of sluice-ways, and as the grubbing and cleaning will be in a light growth of timber, and the excavations and embankments in gravel and sandy loam soil, I infer five thousand dollars per mile, on an average, will cover the expense of grading the road bed for a double track." The other engineer, Major Douglass, estimates all the expenses of every description, including those attending the roads from Jamaica to Brooklyn, and to Williamsburgh, at $1,557,000. He assumes *five hours* as a fair average trip from Brooklyn to Greenport, the eastern extremity of the road, and *six hours and a half* from the latter place to Boston.

"The distance," says Maj. Douglass, "from Greenport to New London is, say fifteen miles, and the passage may be effected therefore in an *hour and a half*, making *six hours and a half* from New-York to New-London.

"By constructing a wharf at Rocky Point, on the Sound shore, opposite Greenport, a termination may be given to the railroad on that side, only eight miles from the mouth of Connecticut river, (in Connecticut,) and by means of a ferry, a passenger will have it in his power to reach the wharf at Saybrook in *five hours and a half* or *six hours* from New-York.

"The trade and travelling which now reaches New-York from the various harbors of Peconic Bay, Shelter Island, Gardiner's Island, and the South Branch, will, in all probability, be diverted to the railroad, as soon as the latter shall be built. The number of vessels now engaged in this trade is from forty to forty-five, and the average number of passengers during the summer months about one hundred per day.

"The vicinity just mentioned is one of great and growing interest to the citizens of New-York, as a place of summer residence and sea bathing, and the same may be said also of a large proportion of both shores of Long Island. The increased facility furnished by the railroad for the enjoyment of this luxury is calculated, therefore, to subserve the health and comfort of the city, and to make the road itself a favorite and fashionable avenue. The trade and business of the *interior* of the Island, including many articles of market supply, which now

find an imperfect and uncertain conveyance by water, would reach the city more certainly, as well as more profitably, both to the buyer and the seller, by this conveyance.

"Lastly, the maritime position of Greenport, its convenience as a *harbor*, unobstructed, at all seasons of the year, and the facility with which it can be made by ships coming on the coast in certain states of the wind—these, and other considerations of a like kind, give it an interesting relation to the city of New-York, as an outport and harbor of safety; and should a railroad communication be established, so as to bring it, for the conveyance of passengers, mail bags, and light merchandise, within *five hours* of the city, it would doubtless contribute essentially, in many instances, to the certainty and despatch of commercial operations."

The subject of "A Society of Civil Engineers" has been frequently spoken of by engineers in our presence. It is a subject, in our opinion, well worthy of attention—one to which we should be happy to contribute the aid of our feeble efforts, and we therefore tender the columns of the Journal for the furtherance of the object.

Memphis, Nov. 11, 1834.

To the Editor of the Railroad Journal, &c.

SIR,—I read with pleasure in one of the late numbers of the Journal, the suggestion of a Society of Civil Engineers. I hope it will be followed up. The question at first occurs, how shall a society of that kind be started? Perhaps the most convenient plan would be the following. Let all the engineers, say from New-York, Philadelphia, Baltimore, and Washington, whose business will permit them to attend, meet at some central point, say Philadelphia, and form a trial constitution, to be published in the Railroad Journal. Let a corresponding committee be appointed at the same meeting, whose business it shall be receive communications and suggestions of improvement of the constitution, which communications shall be laid before a second meeting, and a constitution finally adopted. Terms of admission into the society will form a serious subject of inquiry. These are merely hints occurring to me at the moment. I should be glad to see some prominent engineers of the East "come out" on this subject. In the West we are too few in number to do any thing more than follow suite.

I sent a communication some time ago for the Railroad Journal, on the subject of Railroad Undulations.

The system has been too much extolled on one side, and unfairly ridiculed on the other. "In mediis tutissimus ibis" is an expression that will hold in this as well as in many other subjects of dispute.

An article on the singular subject of the capability of mathematical minds, by Mr. Cheverton, of England, appeared in the Railroad Journal. It is a pity the idea did not occur to Mr. C. that the very same things, with a little alteration, might be said of every other object of study, and class of men. The whole amount of what might be deduced from the above mentioned article is, that a man, who is *exclusively one thing*, is unfit for *any other thing*. This is a very wise maxim, very wise—and yet every body happens to know it.

A railroad from Louisville to Nashville is now in contemplation, and the subject agitated in those cities. From Nashville it will extend to Memphis. I trust the grand scheme will not fail of ultimate accomplishment. The travel along the Ohio and Mississippi waters is immense! This railroad, if finished, would take every passenger from the steamboats between Louisville and Memphis, the passage being made in about 30 hours.

Very respectfully, your obedient servant,

JOHN THOMSON.

Substitution of Locks for Inclined Planes and Stationary Steam Engines, on Railroads.

To the Editor of the Railroad Journal, &c.

SIR,—It is a desideratum with engineers and railroad companies, to discover a substitute on railways for inclined planes and stationary steam engines. This mode of ascending elevations is noticed and deprecated by Geo. W. Smith, Esq., editor of Wood's American edition on Railroads, in the following remarks.

"Stationary steam engines on inclined planes are an opprobium to the present advanced state of the science of civil engineering—they are exceedingly inconvenient, expensive, and dangerous. If the plane be steep, the locomotive engine cannot be advantageously drawn up with the waggons they have conducted to the foot of the plane; the great inconvenience of this system is too apparent to require comment. Hence, any available plan, which will *enable locomotive* engines to ascend inclined planes, with their *full complement* of waggons, will be a most valuable addition to the utility of railroads." He adds, "unless the height to be overcome be great, compared with the length of the whole line of railway, the delay resulting from the diminution of speed will be a trivial inconvenience, when the advantages of dispensing with an expensive stationary power are estimated."

We have not yet experienced the same fatal effects from inclined planes and stationary engines that they have in England, where many lives have been sacrificed by that mode of elevating. Some accidents have occurred in the United States, and they will probably multiply as inclined planes increase, until they produce the same appalling effects they have, and daily do, in Great Britain. There is no question but inclined planes, and stationary steam power, are not only the most expensive, but the most dangerous, parts of a railroad, and the individual who discovers a less dangerous and expensive substitute, though not as speedy, will deserve well of the community. It is rumored that a mode of ascending by locks is contemplated by some gentlemen in this city, and a patent has been, or is intended to be, obtained for the invention. I cannot discover any great difficulty of ascending acclivities by locks, at a much less *original* expense than excavating and furnishing them for inclined planes; but whether the danger and subsequent expense are diminished in the same proportion with the speed—(for locks must be a slower mode of elevating)—is not obvious. It is a subject of much interest to the community, and any probable method of surmounting elevations, than by inclined planes and stationary engines, merits attention and investigation. I feel some solicitude, Mr. Editor, to hear or see more of this lock project, and the inventor has my best wishes for the ultimate attainment, by locks or otherwise, of an elevating power, combining greater economy with less hazard, than the one now in use.

A SUBSCRIBER.

Annual Report of the Superintendent of Transportation of the Baltimore and Ohio Railroad Company.

Office of the Superintendent of Transportation, B. & O. R. R. Co., Oct. 1st, 1834.

PHILIP E. THOMAS, President.

SIR: I have the honor to submit to you the returns of the operations on the Baltimore and Ohio Railroad, for the year terminating on the 1st October.

It will be seen on reference to these documents, marked C, No. 1 to 6, that the receipts have been,—for passengers, $89,181.79, and for tonnage, $115,254.79, making together, for the year, the sum of $205,436.58.

It will also be seen that, during the same period, the expenses of transportation and of the repairs of the railway and of the machinery, have been $132,862.41. Detailed statements of the items composing these several sums will be found on referring to the tabular statement marked No. 4.

On comparing the aggregates of the last year with those of the preceding, the following results will be deduced, viz.

	Receipts.	Expenses.	Net Revenue.
1833,	$195,679.72	$138,484.36	$57,195.36
1834,	205,436.58	132,862.41	72,574.17
Difference	$9,756.86	$5,621.95	$15,378.81

Being an increase in the receipt of last year over those of the preceding of $9,756.86, and a diminution in the expenses of $5,621.95. The net revenue of the year is $72,574.17, while that of 1833 was only $57,195.36; there has consequently been an increase of $15,378.81.

Attention will naturally be attracted to the small amount of net revenue remaining, after paying all the expenses connected with the working of the road. This subject it has heretofore been attempted to explain, but as it is a question of deep interest to the stockholders it may be proper to submit the matter in detail.

The gross receipts, it has been shown, are $205,436.58, whilst the net revenue is only $72,574.17. In comparing these returns with those of many other Railroads now in operation, the result will apparently be highly unfavorable to this work.

In making such comparison, however, it is important to advert to the different characters and functions of those Railroads relatively to this.

It will be recollected that, in their case, the tolls have, in every instance, been *much higher than those charged on the Baltimore and Ohio Railroad.* Those Railways have generally been constructed on the lines of great and well established thoroughfares, for the conveyance of passengers and goods, but more generally for the former. They are, with few exceptions, short, and as they are not, therefore, burdened with numerous agencies, their incidental expenses are consequently limited; and, having been completed to their proposed extent, their receipts would at once realize their original estimates, by the simple transfer to them of the trade already existing, but passing through less commodious channels.

In the case of this work its results are heretofore only imperfectly developed; it has advanced only a short distance towards its ultimate destination, and has scarcely yet participated in any portion of that commerce for which it was especially instituted. Its trade is derived, almost exclusively, from the business of the country, with which, in its present extent, it is locally connected—and although this has become very considerable, it is necessarily procured at numerous points on the line of the road, at most of which depots and agencies have been unavoidably been established. This liberal diffusion of facilities, at whatever places the public convenience has required them, has connected the Company over a great space of Railway within the city of Baltimore, and at several points on the line of the road, with heavy responsibilities, in relation to the receiving and delivery of goods; and has consequently rendered suitable agencies at such places indispensable; and when, also, the fact is adverted to, that, at each of these points, the same extent of responsibilities and minuteness of details are incurred by this Company, that are usually rendered by private forwarding houses, it will be readily conceded that the single branch of the service alluded to cannot be conducted without a competent, efficient, and, consequently, an expensive agency.

Under the circumstances in which this work is thus placed, of providing for and adapting itself to the general demands of the community, it may be confidently asserted that the numerous sources of expenses with which it is charged, cannot, whilst its efficiency and usefulness are maintained, be either curtailed in number or in amount; and, although this may be a disadvantage in relation to a limited busi-

ness, it is satisfactory to know that, in several very heavy items, these expenses would remain without any increase under a great accession to the business of the road.

As the subject of the expenses of this work is one of deep interest, not only to the stockholders, but as affecting also the efficiency and economy of the Railroad system itself, relatively to other modes of transportation, it may be proper, therefore, in the following exhibit, to submit clearly the data on which the assertion has been made, that a large portion of the expenses of the Company would remain without any increase under a very considerable augmentation of their receipts.

The general expenditures of the Company resolve themselves into two classess; the one not being affected either by a diminution of the commerce of the road, or by its increase to a considerable extent—and, consisting of the maintenance of the Railway, the support of depots, pay of agents, &c., may be called the *fixed expenses.* The other, being governed in its amount by the actual transportation, rising or falling relatively to the extent of such transportation, and embracing the cost of moving power and the repairs of vehicles, &c., may be considered as *floating expenses.*

Under the first denomination, that of fixed expenses may be classed:

1st. The maintenance and repairs of the Railroad, and the support of the police of the road. This portion of the expenditures being caused by the cost of removing slips, or opening ditches, drains, &c.—the adjustment of the rails, deranged by settling—by the removal of defective materials from the Railway—and arising, generally, from causes unconnected with the number of carriages which may pass over the road, and not being consequently affected by its amount of business—have been considered as fixed.

2d. The pay of officers, agents, and conductors. The individuals thus receiving pay from the Company, as before stated, cannot be reduced, being absolutely required at the depots that have been established; yet a much greater amount of business could be effected by them without any increase of their number—and it would not be hazarding an assertion, rashly, to state that if the business of the road, in its present extent, were augmented three-fold, these charges could remain without any increase; for the purposes of this exhibit, they may, therefore, be assumed as fixed.

3d. Depot expenses and contingencies, expenses of stations, &c.—These items are precisely similar in their character to the preceding—as although their number cannot be reduced, yet they are adequate in their present extent to the demands of a more extended commerce.

The aggregate outlay on these several accounts has been, viz.:

Repairs of Railways, &c.	$22,795.90
Pay of Superintendent, Agents, and Conductors,	13,453.20
Depot and Station expenses, contingencies, &c.	16,135.23
Total of fixed expenses,	$52,384.33

Under the second class of disbursements, that of floating expenses are embraced:

1st. The cost of moving power; that is, the feed, wear and tear, and general attendance on the horses and mules employed on the road, the pay of their drivers, &c.

2d. The use of locomotives, their fuel, and the pay of engineers and repairs of the engines, the repairs of waggons and carriages, and contingencies.

These items have amounted to, viz.:

Moving power, and wear and tear of horses,	$64,428.31
Use of locomotives, &c., and the repairs of cars, contingencies, &c,	16,049,77
Total of floating expenses,	$80,478.08

The general expenses are thus subdivided and classed as follows, viz.:

Fixed expenses,	$42,384.33
Floating expenses,	80,478.08
Total expenses,	$132,862.41

The results, therefore, which may be deduced from this analysis, are the following:

1. The actual receipts have been $205,436.58
The expenses have been, viz.:
Fixed, $52,384.33
Floating 80,478.08
132,862.41
The net revenue, $72,474.17

2. Had the receipts been doubled, the following result would have been obtained:
Actual receipts, $205,43.536 × 2 = $410,873.16
Expenses, viz.:
Fixed, $52,384.33
Floating, 80,478.08 × 2 = 160,956.16
213,340.49
Net revenue would be $197,532.67

3. Again,—the assertion has been made, that had the receipts been three fold as great as those collected on the road, yet, on the principal alluded to, the following results would have been presented, viz.:
Actual receipts, $205,436.58 × 3 = $616,309.74
Expenses, viz.:
Fixed, . . . $52,384.33
Floating, 80,478.08 × 3 = 241,434.24
293,818.57
Net revenue will be $322,491.17

Or, to apportion these expenses between the passenger and tonnage business, as stated in Table C, No. 4, the following exhibit would appear, viz.:

Expenses.	*Passengers.*	*Tonnage.*	*Total.*
FIXED—viz.			
Repairs of Railroad, &c.	$11,397 95	$11,397 95	$22,795 90
Pay of Agents, Officers, and Superintendent	5,538 98	7,914 22	13,453 20
Depot expenses, contingencies, supervisors and stations on road	6,611 78	9,523 45	16,135 23
	$23,548 71	$38,885 62	
FLOATING—viz.			
Moving power, and wear and tear of live stock:	25,851 83	38,576 48	64,428 31
Repairs of waggons, Carriages, use of Engines, &c.	9,715 36	6,334 41	16,049 77
	$35,567 19	$44,910 89	$132,862 41

Thus, although with the present limited business of the Company, the net revenue has only been $72,574.17, yet if the road possessed a commerce of three times its actual extent, instead of its net revenue advancing only in a direct ratio,—or to $217,722.51,—it would, from the causes stated, be increased to $322,-491.17.

The experience of the Company presents ample confirmation, in the monthly returns of the receipts, of the correctness of the data from which these hypothetical statements have been deducted,—and, in the analysis of the expenditures incurred in any two months of the past year, where the two extremes of revenue from tonnage presented themselves—viz. in July, when it was only $6,906.26,—and in September, when it amounted to $11,944.99,—the principle alluded to has been fully sustained.

In taking a prospective view of the operations of this Company, it may be assumed generally from the experience obtained that the net revenue will always advance in a greater ratio than the gross receipts, and that although that portion of the expenditure which, for distinction, has been denominated fixed expenses, will, in some of its items, after a certain accession of business, be slightly increased, yet such increase will form a very unimportant addition to the general amount,—or affect in a very trifling degree the principle it has been sought to elucidate.

The Western Trade.—This Company have now had the benefit of an experience, derived from active and uninterrupted operations for a period of nearly three years, on a line exceeding sixty miles in extent.

The transportation they have effected, during this time, has been of the most varied and general character, embracing commodities of the most cumbrous and ponderous descriptions known in commerce: among them may be daily remarked blocks of granite weighing several tons each,—logs of timber of from fifty to seventy feet in length,—machinery of the most unwieldy forms,—considerable numbers of live stock,—as well as every imaginable variety of produce and merchandize:—these may frequently be all seen on the railway, collected into a single train, and all moving with equal facility and despatch. The question of the adaptation, therefore, of the railroad system to the purposes of a general commerce, may certainly, by the daily proof thus afforded, be considered as settled.

On the portion of road now described there is a recurrence of all the impediments and disadvantages which would be found to exist on the extension of the work to the Ohio River. Its line, throughout these sixty miles, is excessively curved,—its grade is undulating,—and it has a succession of inclined planes to surmount; it, therefore, may be presumed to present, within this space, as many causes of expense and of delay as would be found to exist on a continuous line to that river; it may be questioned whether it does not exhibit more: for, although a railway accross the ridge of the Alleghany mountains would have a more extensive series of inclined planes, yet, as these would only occur in one instance on a road of nearly 300 miles in length, they would therefore have, relatively to their extent, a greater proportional length of level railway than exists in reference to the planes now worked at Parr's ridge.

It may, therefore, be assumed that statements, based on the facts just adduced, will be applicable to the prospective operations on a continuous railway to the Ohio River.

The line of road now in use, on which the transit is daily effected in both directions, extends to the Point of Rocks, a distance of sixty-nine and a half miles. Animal power having been heretofore alone used on this road for tonnage, the transit between Baltimore and that place is effected in twenty-four hours: that is to say, goods are received daily at the depots of the Company in Baltimore, from individuals, until twelve o'clock at noon, and are immediately loaded and conveyed to the Point of Rocks, where they arrive at the same hour of the following day.

The price for which this conveyance is effected is, westwardly, six cents; and, eastwardly, four cents per ton per mile, (of 2,240 lbs.)

Without at this time pausing to advert to the vastly superior speed that will be obtained on the substitution, in this branch of the business, of steam for horses, and without basing any calculations on its greater economy as a moving power, it would appear, from the data deduced from the daily operations of the Company, that, the distance between the nearest point of the Ohio river and Baltimore being estimated at 310 miles, the transit would be effected in a little over four days: that is to say, goods forwarded from Baltimore would be delivered early on the fifth day on the Ohio—and *vice versa.* And this service would be rendered, even at the highest rates permitted by law to this Company, and including all their charges, for the following prices, viz.: Westwardly, from Baltimore to the Ohio, for 84½ cts. per 100 lbs.; Eastwardly, from the Ohio to Baltimore, for 56⅓ cts. per 100 lbs.

It is an encouraging fact, and one of great

value to this work, that, low as these rates appear to be, they will, whenever it shall have reached a point which will afford more business to the road, admit of an extensive reduction. This consideration is the more important, as it will enable this Company to compete successfully with other modes of conveyance—or to reduce their prices, either to increase the traffic of the road, or to promote the western commerce of the city.

In order to ascertain how far this work may be enabled to realize all those important results, it may be proper to show the actual cost to the Company of transportation on the road, deduced from the experience and facts they possess from the operations of last year.

It will be perceived, by reference to table No. 2, applied to this report, that the tonnage transported in both directions has consisted of 56,120.17.3.3 tons, and has produced a revenue of $116,254.79; this tonnage having paid for its conveyance a medium rate of about 4⅔ cents* per ton per mile, therefore the whole amount conveyed is equal to 2,491,174 tons for one mile, viz. 2,491,174 tons × 4⅔ cts. = $116,254.79; or it is equal to 35,844.23 tons conveyed the whole distance between Baltimore and the Point of Rocks, viz. 35,844.23 tons × 69½ miles × 4⅔ cts. = $116,254.79.

The cost of this conveyance has been shown by the preceding table to be divided into two heads of expenses: one, the floating expenses, consisting principally of moving power and repairs of machinery, and advancing or receding in the direct ratio of the tonnage transported—this particular item amounted on tonnage by that table to $44,910.89, or to 1⅘ cents per ton per mile, viz.: 35,844.23 tons × 69½ miles × 1.8028 cents = $44,910.89.

The other division of the expenses of transportation, denominated, from their remaining stationary under considerable terms of increase of revenue, the *fixed expenses*, amounted to $28,835.62.

It has also been shown that if the business of the road were enhanced to a threefold amount,—and with slight modifications this limit might have been extended much farther—yet that these particular expenses would not be increased by such improvement: and that, consequently, if the present local tonnage of 35,844 tons were augmented threefold,—and it cannot but be considered as a very moderate estimate, when it is recollected that reference is had to the Ohio trade,—the fixed expenses would then be only .385837 cents per ton per mile,—viz.: 35,844.23 tons × 3 = 107,532.69 tons × 69½ miles × .385837 cents = $28,-835.62.

This sum being the amount of those expenses last year. In other words, with a yearly transportation of 107,532 tons, the ratio of the entire expenses would be, viz.:

Floating expenses,† say	1.8	cents.
Fixed do.	" .386	
Total expenses of transportation	2.186	per ton per m.

Thus the whole expense incurred by this Company in the transportation of goods and produce between the City of Baltimore and the Ohio River, under all the tardiness and costs incident to *animal power*, would be less than 2½ cents per ton, viz.: 1 ton × 2.186 cts. × 310 miles = $6.78, or 30½ cts. per 100 lbs.

At the rates now charged, the transportation, eastwardly, from the Ohio, per 100 lbs. would be 56⅔

Westwardly, the transportation would be per 100 lbs. 84⅓

141

2) 141

Average, ... 70½

The expenses being 30½

The Net Revenue would therefore be per 100 lbs. 40

As the great object of the institution of this work was to offer to the commerce of the West a rapid, uninterrupted, and cheap means of conveyance to the Baltimore market, and, as this traffic is already in possession of other improved avenues to the Atlantic, it is a matter of the highest importance to know the extent to which a reduction in the rates on this road could be made to meet either the exigencies of trade, or the competition of other lines of communication; and, in making such estimate, the fact will be kept in view, that in every instance where the tolls have been lowered on other works, instead of a diminution of income, they have invariably, by the great accession of business the measure has produced, had an augmentation in their Net Revenues; similar effects would result from the same proceeding in relation to this railroad, and, as under the circumstances just stated, 56⅔ per cent. of the gross receipts on tonnage,—or 40 cents for each 100 lbs. conveyed,—is net income, such portion of this sum, therefore, could be surrendered as events might render expedient or necessary: for instance,—if a reduction were made of 25 per cent. on the toll and transportation, the charge would then be, viz.:

70½ cents less 25 per cent.	=	53 cents.
Expenses as stated above	=	30½
Net Revenue for each 100 lbs.		22½

That is to say, the average price of 53 cents for the two directions would resolve itself into the two rates of charge of—

Westwardly 53 cents per 100, from Baltimore to the Ohio, and Eastwardly 42 cents per 100, from the Ohio to Baltimore—or for each barrel of flour conveyed from the Ohio to Baltimore, the freight would be rather less than 92 cents.

That this Company with an ample business on their road could with great facility, and with positive advantage to themselves, as well as to the community, reduce their rates to this extent, or even more, can scarcely be doubted.

There is, however, another consideration which is entitled to great weight in this question, and which affords to railroads generally the means of meeting or resisting competition, from other modes of transportation, in a pre-eminent degree: it is the certain and unfailing resource they possess in the conveyance of passengers. This description of business is benefitted in its net profits, even more rapidly than tonnage, by an increase in its amount. This will be readily conceded when it is observed that a locomotive engine will carry upwards of two hundred persons at the same cost that is incurred to convey any less number; any measures, therefore, that may add to the commerce on the road, must also necessarily augment the number of persons travelling in connection with such commerce: and whatever sacrifice of their Revenue from tonnage the company might find it expedient to make, in order to promote or protect any of the great interests connected with this work, they would, from the enlarged business that must ensue from that measure, be more than indemnified in the increased receipts they would derive from passengers.

Application of Steam.—As a matter of the highest interest to the Company, during the last season, may be noticed the successful use and permanent introduction of steam on the Railway.

On the 13th July, Messrs. Davis & Gartner completed and placed upon the road a new engine, called the "Arabian." After a few days of defective performance, occasioned by unsuitable fuel and other embarrassments, arising principally from the newness of the machinery, this engine performed regularly, and with great accuracy, the daily round of duty of 80 miles, with the passenger train, to and from the planes to Baltimore.

Since that period, a second engine has been received from the same factory, which is also now undergoing a similar trial to that described in reference to the Arabian, and it is performing it with equal success.

The satisfactory manner in which those engines have worked, has realized the most sanguine expectations formed of their economy and efficiency; and although necessarily limited from prudential considerations to a moderate rate of travelling, by the curvatures of that portion of the road on which they ply, they evidently possess the power of exerting a very superior speed.

In the routine of operations in which these engines have been engaged, they have each performed the same service that it had previously required 49 horses to effect. This, however, is not to be considered as the extent of their efficiency; it is merely the limit to which the peculiar business on which they have been employed has required their power, as instances have occurred in which the services of a single engine have, during the day, represented the work of 113 horses.

The question of the economy of steam power has been so long conclusively settled that it would be superfluous, if it were practicable, to add any new remarks on this head: there is one particular, however, connected with a subject already alluded to in this report, in which its efficiency will have a most beneficial effect on this work, and by which will be added another proof to those already adduced of the disadvantages and high relative cost of transacting a small business on a Railroad.

The engines, it has been stated, have daily been employed in transporting the Frederick train 80 miles. This train has generally consisted of from 50 to 70 passengers; sometimes, but very rarely, 100; the result of this operation has been, viz.:

50 passengers, 80 miles, at 3 cts. per mile,	$120
Expenses of locomotive, 1 day, say,	20
Net amount,	$100

Each engine could, however, with equal facility, have conveyed 200 or 250 persons, and if the business of the road were sufficiently advanced to require its service to that extent, it would be effected at the same cost; the result would then be as follows, viz.:

200 passengers, 80 miles, at 3 cts. per m.	$480
Expense of locomotive, 1 day,	20
Net amount,	$460

Thus, with precisely the same outlay of expenses of every description, with the single exception of the wear and tear of the additional carriages that would be required, the net profit of a day's work of the engine, with a full business, would be $460; whilst, with the present limited business, it is only $100.

Repairs of the Railway and Maintenance of the Police of the Road.—The duty of superintending the condition of the Railroad, and of effecting the necessary repairs, having been incorporated with the department of Transportation, it is requisite that, in this report, a statement should be presented of the cost of that service.

It will be perceived that the aggregate expenditures incurred under this head have been 22,795.90, being 8.757.14 less than during the preceding year; these disbursements have been made for the following items, viz.:

Repair and adjustment of stone track, ...	$5,960.41
Do. do. do. wood do.,	5,486.67½
Removal of slips, cleaning ditches, drains, &c.	6,857.46
Repair of horse track, ...	2,081.33
Contingencies, ...	2,460.02½
Total for the year,	$22.795.90

* This rate is deduced from the average of the two amounts received for tonnage transported in the two directions—(see table C, No. 2,)—viz.: that eastwardly having paid four cents per ton per mile—and that westwardly six cents. The precise rate will be found to be, cents 4.6437.

† The unimportant decimals have been here excluded.

Reductions have from time to time been made in the number of supervisors employed in this department, until from seven they have been diminished to three; beyond this, it is believed, no reduction can be effected. Each of these agents has the supervision of upwards of 20 miles of road, and as they are charged, also, during the winter, with keeping the track free from snow, and in order for uninterrupted travel, it is important that this branch of the service be not too much weakened. It is due to these officers to acknowledge the alacrity and success with which this important duty has, in every instance, been discharged by them; and that, although this road has now been in operation for nearly three years, the transit has been effected throughout the entire line in both directions, without the interruption of a single day, during the whole of this period.

General Operations of the Year.—It has been shown that the receipts of this year have been advanced over those of the preceding to the amount of $9,756.86, while the general expenses have been diminished $5,621.95. This state of the business, although relatively favorable, presents, nevertheless, but an imperfect view of the improvement that has actually taken place in the general commerce of the road; or rather, in the extent of country and population to which it has become the means of intercommunication; for, in common with all public works, the Railroad, for several months of the past year, participated in the general depression of trade, and experienced a very great diminution of the tonnage and passengers of its previously existing lines of conveyance. The increase which has, therefore, actually taken place in its receipts, will establish the fact of the more extended range of its recent operations; and, as it has arisen from several new and important channels of business, which have successively become connected with the work, the company cannot fail during the next year to feel their influence on the revenue.

The railroad having received, for some time, through the lateral road to the city of Frederick, a full portion of the business that can at present flow from that quarter, it is a matter of deep interest that the main stem of this road should, as rapidly as possible, be connected intimately with the commerce of the Potomac and Shenandoah, as it is through these channels, aided by the public works now being made in connexion with them, that the future accessions of revenue will be received; and it may be stated, as a proof of the progress the business has recently made in this quarter, that, by comparing the receipts of flour at the Point of Rocks depot on the Potomac, for the six weeks immediately preceding the 1st of October of this year, with the same period of last, it will be found that, in this short space, there has been a gain in the present year of 9,204 barrels, viz:

Received at the Point of Rocks depot, from 20th August to 30th September, 1833, 1,417 barrels. From the 20th August to the 30th September, 1834, 10,621 barrels. Gain in 1834, 9,204 barrels.

Respectfully submitted,
W. Woodville,
Superintendent B. & O. R R.

Junction of the Rhine with the Danube.—The following particulars of a plan to unite the Rhine and the Danube, by means of a canal, are given in a private letter from Munich, dated October 8. The government of Bavaria is now anxiously occupied with the consideration of a plan for uniting the Rhine with the Danube, by means of a canal. This plan was thought of so long ago as the time of Charlemagne, but various circumstances prevented its execution. According to the law which received the sanction of the Bavarian Chambers, the canal will be completed by a company of shareholders, but the government is to have the power to take one quarter of the shares. The maximum of toll which the proprietors of the canal are authorized to exact, during ninety-nine years, is fixed at one-third of the price which would be charged by waggon for the same distance. The canal will have its source in the Danube, near Kellheim. Its course will follow the valley of the small river d'Altmiihl and the Sulz, as far as Neumark; from thence the canal will pass in the direction of Nuremberg, and pass the river Reignitz, by Furth and Bamberg. Its length will be 592.543 Bavarian feet, or 23½ German miles. Its breadth will be 54 Bavarian feet, and its depth 34. The highest elevation of the canal will be 273 feet above the surface of the Danube, near Kellheim, and 630 feet above the surface of the Reignitz, near Bamberg. This elevation will be attained by means of ninety-four locks. It appears from an official calculation, that the conveyance of a quintal of goods throughout the whole length of the canal will not cost above a kreutzer and a half, including the expenses of navigation. Adding to this 12 kreutzers for the toll of a quintal of wood, and 24 kreutzers for any other description of goods, it would appear that goods may be conveyed the distance of 23½ geographical miles at the rate of 13½ kreutzers for the quintal of wood, and 25½ for the same weight of other descriptions of goods. Taking the average annual quantity of goods conveyed in the same direction, a saving of transport to the amount of 900,000 florins, (about a million of francs,) may be effected. Not only will this canal effect a saving in the price of transport, but it will also increase the number of outlets for manufactures in that direction, and will be of great benefit both to consumers and producers. The economy in the means of transport will lead to a reduction of the cost of the first materials, and the commerce of the whole of Europe will benefit by it. The expense of the construction of the canal is estimated at about 18,732,800 francs, and the expense of repairs at the annual sum of 175,921 francs. From various calculations, it is supposed the shareholders will derive from the canal a net profit of 600,000 florins, or about seven per cent. upon the capital of the first investment, it being supposed that, in the first year, at least 1,700,000 quintals of goods will have been conveyed along its whole extent.—[English Paper.]

The following patent for tanning leather may be of use to some and interesting to others of our subscribers. It is from the "Repertory of Patent Inventions" for August.

Specification of the Patent granted to John Paul Neumann, *of Cornhill, in the City of London, Merchant, for certain Improvements in making or producing Leather from Hides and other Skins.* Sealed December 21, 1833.

To all to whom these presents shall come, &c. &c. *Now know ye*, that in compliance with the said proviso, I, the said John Paul Neumann, do hereby declare that the nature of the said invention, and the manner in which the same is to be performed, are particularly described and ascertained in and by the following description thereof, (that is to say):

The novelty and utility of the new invention communicated to me by a certain foreigner, residing abroad, consists in employing the hop plant, whether root, stalks, or leaves, or any part thereof, either in a green or dry state; but I prefer the use of the plant in a dry state, and for the sake of economy, I give the preference to the stalks and the roots; but be it understood, although I prefer the hop plant, or any part thereof, to be used by itself for the purpose of tanning, yet they may be used in conjunction with any vegetable containing tanning matter. The mode to which I give the preference for this plant to be used for the purpose of tanning, is to grind or reduce it as fine as practicable, and, when so prepared, it may be employed for every mode of tanning in the same manner as oak bark, or any other vegetable containing tanning matter. According to circumstances of different hides or skins, this tanning matter may be applied either warm or cold, whether in extract or mixed with other matter; every practitioner in tanning will soon perceive which mode is most applicable for the different hides or skins which he means to subject to the process of tanning, as hides and skins require different modes of treatment; with some it is necessary to use heat or warmth, and others cold; but I prefer to have the hides or skins prepared in the usual mode hitherto followed by practical tanners.

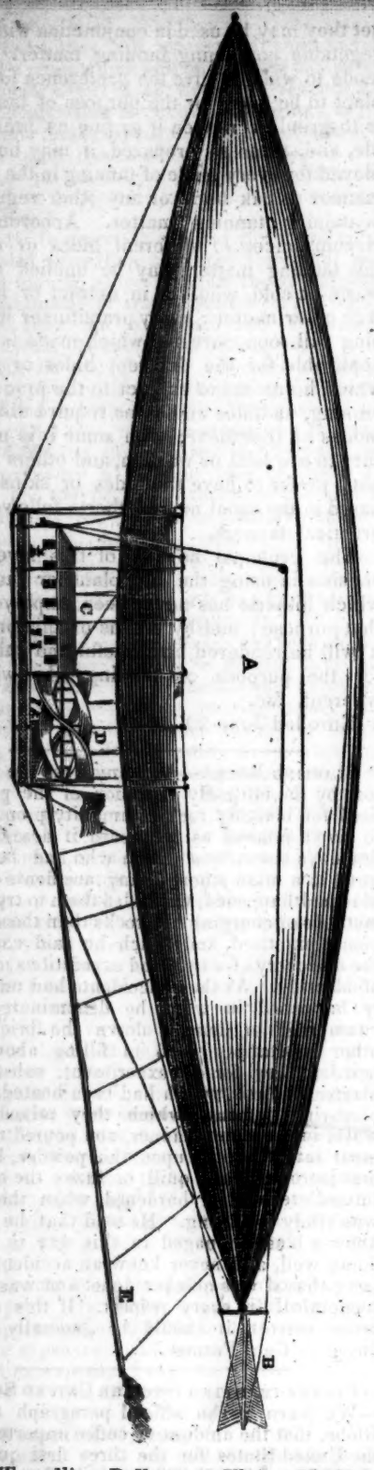
The principal novelty of this invention consists in using the hop plant for tanning, which hitherto has never been employed for that purpose; and by means of this process it will be rendered both useful and valuable for the purpose of tanning.—In witness whereof, &c.

Enrolled June 20, 1833.

Blasting Rocks.—As many lives are yearly lost by the untimely explosion of the powder used for blasting rocks, humanity prompts us to give a process as we heard it described a few days since, by a person who had been injured in a mine where many accidents of the kind had happened, which led them to try other methods of charging the rocks than those commonly practised, and which he said ended in the discovery of a safe and expeditious manner of blasting. As these accidents had uniformly happened in what he denominated the "tamping" or driving down the brick and other substances used in filling above the powder, they, for an experiment, substituted plaster of Paris, which had been heated, as for preparing cement, which they mixed with water in the same manner, and poured the cement into the hole upon the powder, having first introduced the quill or fuze; the cement immediately set or hardened, when the blast was ready for firing. He said that he never knew a blast managed in this way to fail of doing well, and never knew an accident happen; that it was quicker done, and was more economical in every respect. If this should prove correct, it should be generally introduced.—[Gen. Farmer.]

Coffee imported into the United States.—We learn by an official paragraph in the Globe, that the amount of coffee imported into the United States for the three first quarters of 1833, was 99,955,020 lbs., valued at 10,567,299 dollars; and that for the three first quarters of 1834, there were imported 60,344,701 lbs., valued at 6,473,469 dollars. During the corresponding period last year, there were exported 24,897,144 lbs. valued at $3,041,689—this year 32,715,599 lbs. valued at $3,969,906.

South American Cotton.—Some specimens of this cotton, from a tree twenty years old, and about fifteen feet high, have been forwarded to Washington, by R. B. M'Afee, at Bogota, with some of the seeds for distribution among the southern members of Congress. The tree bears two crops every year, one ripening in June and the second in December, each tree yielding from four to six pounds of cotton.



Explanation.—A, the body of the balloon; B, helm, or rudder; C, cabin; D, spiral fan-wheel; E, funnel, or smoke pipe.

Travelling Balloon, or Flying Machine.

To the Editor of the Mechanics' Magazine:

SIR,—Having lately proposed a plan for employing a balloon for an observatory, I shall now endeavor to describe more minutely the construction of a similar balloon, with apparatus for propelling and mode of managing the same under various circumstances, and show the comparative safety to which this mode of travelling may be reduced.

A balloon 500 feet long and 50 in diameter, gradually tapering from the centre to a point at each end, (which figure, for want of a better name is called a *pointed spheroid*,) is made of strong sheeting, and is rendered tight by oil or varnish; and its form is supported by eight wooden rods, an inch and half in diameter, which extend the whole length of the balloon, inside of the sheeting, and are fastened together at the ends, but separate so as to be equidistant from each other towards the centre, the sheeting being nailed to the rods at every foot of their length, by which they are effectually kept in place. These rods, it will be understood, continue in contact the whole length, until the balloon is inflated, when they become separated as above mentioned.

A stage fifty feet in length and twenty in breadth, constructed economically with regard to the weight of materials, is suspended by cords about twenty feet below the balloon; the cords, thirty or more in number, being attached to the stage at various points and convenient distances, are supported at the top by rings, which are attached by screws to the several rods or ribs of the balloon. The stage is further supported by four other cords, two of which extend from the two forward corners of the stage to the forward point of the balloon, and the other two from the two hind corners to the stern point. To this point is connected, by a universal joint, the end of a pole four inches in diameter, which extends backward horizontally twenty-five feet, tapering to the diameter of two inches. From the small end of this pole four arms project in opposite directions; and from the outward end of each arm, a cord extends to the forward end of the pole, being made fast to both. These arms are six feet long, ten inches wide, and one inch thick, being tennoned to the pole, and supported by a wire which compasses the four, and is fastened to the end of each. To the space between each cord and the pole, a piece of painted cloth is fitted, one edge of which is nailed to the pole, and the other is sewed to the cord: the wide end is also nailed to the arm. Other four arms, six feet in length, project in opposite directions, two vertically and two horizontally, from the forward end of the pole, near the universal joint. Two cords extend from the small end of the pole to the ends of the two horizontal arms last mentioned; thence forward to two pulleys, which are attached to the sides of the balloon, a little forward of the centre; thence down to a light steering wheel, on the forward part of the stage. Three other cords proceed from the same point: two of which pass over the head of the upper arms; thence over two pullies near the first; and the other cord passes to the end of the lower arm, thence over a pulley attached to the lower side of the balloon; and the three terminate on a small shaft, with a crank, ratchet and fall, near the steering wheel, that the steersman may be able to govern the vertical as well as horizontal variations in the direction of the balloon.

The stage is enclosed by a railing of cordage and net-work, and on the forward and central part is a cabin thirty feet long and ten wide, covered with painted cloth, and supported by the suspending cords. Two spars, thirty-five feet long, and secured in a horizontal position, twenty feet apart, parallel to each other, and about ten feet above the stage, one of them being over the hinder part of the stage, and the other over the end of the cabin. These spars are also supported principally by the suspending cords and braces, and each end of each spar supports the pivot of a revolving shaft, which is twenty feet long, and extends from one spar to the other. Neither the spars or shafts are more than four inches in diameter, but are thoroughly supported by braces of cordage extending from end to end of each, and passing over circular bearings near the centres. Near each end of each shaft are four arms seven feet long, and other four arms also project from the shaft at every two feet of its length, the several sets of arms not being parallel, but each set varying in direction twenty degrees; thus each row of arms has a spiral direction, extending half round the shaft, and supports a spiral fan of fine oiled cloth, four feet wide, and extending the length of the shaft. The spiral direction of the fans on the two shafts is opposite, being such that the outward motion of the upper fans will mutually tend to propel the machine forward by the re-action of the air. On one end of each shaft is a small spur wheel, or band wheel, by means of which motion is communicated to the spiral fans, from a steam engine of ten horse power, having a boiler of a light portable kind, and situated on the after part of the stage. The engine and connecting machinery need not be particularly described. No other fuel than charcoal is used, and the combustion depends on a blast rather than draught; and the smoke is conducted by a very small and light copper pipe, horizontally to a point a little below the rudder. This pipe is sustained by wires, and as the wind will be invariably ahead, will effectually prevent any danger from the sparks.

The area of the circumference of the balloon is about two thousand feet, and the length being equal to ten times its diameter, it may be propelled fifty miles an hour, by the power that would be requisite to propel a cylinder of the same diameter five miles in the same time, being a uniform pressure of about one ounce to a square foot, or one hundred and twenty-five pounds to the whole area—less than the power of one horse. Hence I infer that the ten horse power engine will be sufficient to propel this balloon at least fifty miles an hour, or stem the current of a heavy gale of wind.

The buoyancy of the balloon is	34,000 lbs.
I estimate the weight of the sheeting, varnished, (4000 yds.,) at	4,000 do.
The wooden rods used in the construction	1,500 do.
Stage, cabin, fan-wheels, and cordage, ...	5,000 do.
Engine, boiler, water, and fuel,	4,000 do.
	14,500
Balance of buoyancy . .	19,500 lbs.

sufficient to carry one hundred passengers, with baggage and provisions. I am aware that no estimate approaching to accuracy can be made of the expense of constructing such a balloon, but it is readily ascertained that the expense of the materials (exclusive of the steam engine) would be less than three thousand dollars. A suitable engine would cost two thousand. If then we allow five thousand for preparing, constructing, arranging, and adjusting the several parts, and the expense of inflation, the amount (10,000) is less than the cost of an ordinary ferry boat.

With regard to management, the balloon is to be kept continually inflated, (except in winter,) having on board apparatus for the production of hydrogen gas, and a pipe for conveying the same to the interior of the balloon whenever occasion requires. It is not to be brought to the ground in any case, but moored, when not in use, with a reason-

able length of halser, furnished with a self-adjusting pulley. When passengers are to be received or landed, the balloon is brought near the ground, and the passengers are drawn up or let down by a small car, or circular settee. Each passenger is furnished with a parachute, by which each may safely land in case of extreme disasters. This will render their situation less critical than that of those who are exposed to the perils of a raging sea in a leaking ship. Moreover, the stage is furnished with several light hollow cylinders, or sacks of air, of sufficient buoyancy to support the stage with the passengers, should it chance to descend upon the water.

It is obvious, that when passengers are received, a corresponding weight of ballast must be discharged, and vice versa: yet the balloon will admit of a degree of contraction or expansion, by means of cords, sufficient to counterbalance the consumption of fuel and water.

Such is my plan for flying; and as the immortal Fulton ventured to build a steamboat seventy years after Jonathan Hulls had published his plan for the same, I shall indulge the hope that some enterprising person will within another seventy years build and put in successful operation a manageable balloon. And as Fulton experienced some difficulties in securing the patent, on account of the want of originality, I have no hesitation to offer, and promise, at least, an undivided half of my claim to the patent, to any person or company who will be at the expense of building such a balloon on a scale sufficient to test its utility.

Respectfully yours,

RUFUS PORTER.

Billerica, Mass., Sept. 23, 1834.

N. B.—The balloon represented in the plate is 250 feet in length, and 50 in diameter: it being inconvenient to make the drawing correspond in proportions with the description.

The Principles and Practice of Constructive Carpentry, being a Full and Complete Treatise on the Theory and Practice of Carpentry and Architecture, compiled from the Works of Tredgold and Nicholson, and other Authorities, with the Latest Improvements in every Branch of the Art. Royal 8vo. No. 1: New-York, W. NORRIS, 1 Nassau street.

It has ever been our decided opinion, that a most important part is performed, in the extension of knowledge, and in promoting the general advancement of society, by the publication of treatises on the mechanical arts.

Mathematical, like every other kind of science, remains a dead letter until it be applied "to the business and affairs of men;" on the contrary, however, when it is applied to the useful arts, it extends the views of the artist, substitutes certainty for uncertainty, security for insecurity; it informs him how to raise the greatest works with confidence, and how to produce stability with economy, or, in its own language, how to obtain a maximum of strength with a minimum of materials.

There is perhaps no class of mechanical arts so directly capable of receiving improvement from the researches of men of science, as those connected with building; neither is there any that has received a greater share of their attention. But these researches have not benefitted practical men in proportion to the extent to which they have been made. They are too often given to the world in works which are either so expensive as to be inaccessible to the greater number of men of business, or so completely scientific as to be almostuse less to all but men of science themselves. Something may also be attributed to a kind of distance and jealousy which appears to exist between theoretical and practical men; and which has, perhaps, sometimes prevented the practical mechanic from benefitting by scientific researches, the results of which have been within his reach. But these prejudices are fast wearing out. Of this fact we need no better proof than the encouragement which begins to be given to popular treatises on mechanics, to mechanics' magazines, and to the formation of mechanics' institutes.

One or two attempts have already been made to treat the subject of CARPENTRY on mathematical principles. "The Carpenter's Guide," by Peter Nicholson, is a very excellent and justly popular work, but it is almost entirely confined to what is termed "finding the lines;" and although it fully developes the methods of geometrical construction, it does not enter at all into those mechanical principles, a knowledge of which is necessary to enable a carpenter to tread with certainty and economy out of the usual routine of his operations. This part of the subject has, however, been taken up in "Elementary Principles of Carpentry," by Thomas Tredgold, civil engineer; and he who possesses these two treatises, and can understand them, need scarcely wish for any other work upon the subject. But in both of them, especially in the latter, a great many algebraic formulæ are used, which but few practical carpenters or builders understand: moreover, to purchase both of those works may be beyond his means, especially at that period when it is most desirable that he should be in possession of such works.

The work before us is intended to combine the whole substance of both these treatises, with such additional matter as may have been accumulated since the time of their publication. Something is promised on the construction of canal locks and water wheels. The architectural part will also be more full than is general in such works. The number just published contains a short system of practical geometry, with part of a treatise on the equilibrium and pressure of beams, illustrated by three copper-plate engravings. The mechanical principles are exhibited in a plain and simple manner, mathematically correct, yet without requiring more previous mathematical knowledge in the reader than is necessary to work a rule-of-three question. The general object of the work is well expressed in the following extract from the prospectus:

"The work is compiled with especial reference to the operative carpenter. It is intended for the use of the workman or the apprentice who may wish to gain a more extensive knowledge of his art, and who may aspire to such skill and information as will enable him to design and execute the greatest works with elegance and durability, and in due time to assume the highest standing in his profession—a point which any man may honestly aim at, and to which a good resolution and vigorous exertion, properly directed and persevered in, will seldom fail to conduct him. To aid such laudable efforts is one great object of this work. But it is not to the carpenter only that an acquaintance with the principles of construction is useful—such knowledge is almost equally necessary to the architect, the civil engineer, and all persons in any way connected with building. 'Construction is the anatomy of architecture; it is the very base upon which the art of design must be founded, and on the nature of the base must depend the excellence of the superstructure.'

"Although the 'Principles and Practice of Constructive Carpentry' will be compiled in such a manner that it may be readily comprehended by a mechanic of the humblest education, it will contain much practical matter, both original and copied, that will be of great utility to individuals of higher acquirements; and much useful information, which can only be obtained by long experience, or which lies scattered through a number of expensive volumes."

The proposed arrangement of the work is excellent, beginning with simple principles and regularly progressing to the most elaborate workmanship. The typographical execution is of the first quality, and the publisher appears to have spared no expense in order to bring the subject in as clear and pleasing a manner before the physical, as the writer has brought it before the mental eye of the reader.

We would earnestly recommend the study of such works as this to all mechanics. No man can know too much concerning the business by which he obtains his bread, and on which hangs all his hopes of rising in the scale of society. Other kinds of knowledge *may*, this is *sure*, to be useful to him. Such knowledge he *must* possess, if he would ever rise beyond mediocrity in the exercise of his art. And to those who are not already in possession of good works of the kind, we would recommend "the Principles and Practice of Constructive Carpentry." The method of publication, in monthly numbers, 25 cents each, renders it accessible to every one; and, from what we have already seen of it, we have no doubt that it will prove a most useful and practical work.

MAHOMEDAN MONTHS.—In chronology and history, as well as in all public documents, the Mahomedans use months of thirty and twenty-nine days alternately, making the year thus to consist of 354 days. Eleven times in thirty years one day is added to the last month, making 355 days, therefore, in that particular year. In common reckoning the year is purely lunar, consisting of 12 months, each one commencing with the appearance of the new moon, without any intercalation to bring the commencement of each year to the same season.—[Scientific Tracts.]

TENACITY OF LIFE.—Edwards, a celebrated experimental physician of France, not long since deprived two Salamanders of their hearts, and then placed them in water of the same temperature, which had been deprived of air by boiling, and two others in air. One of the former died in eight hours, the other in nine, while those in the open air lived from twenty-four to twenty-six hours. By repetition the same results were presented, by which he infers that air, in comparison with water, has a superior vivifying influence upon the system of these animals, independently of its action by means of circulation and respiration.—[Ib.]

[From the Repertory of Arts.]

Specification of the Patent granted to ROBERT STEPHENSON, *of Newcastle-upon-Tyne, in the County of Northumberland, Engineer, for a certain Improvement in the Locomotive Steam Engines now in Use for the quick Conveyance of Passengers and Goods upon Edge Railways.*—Sealed October 7, 1833.

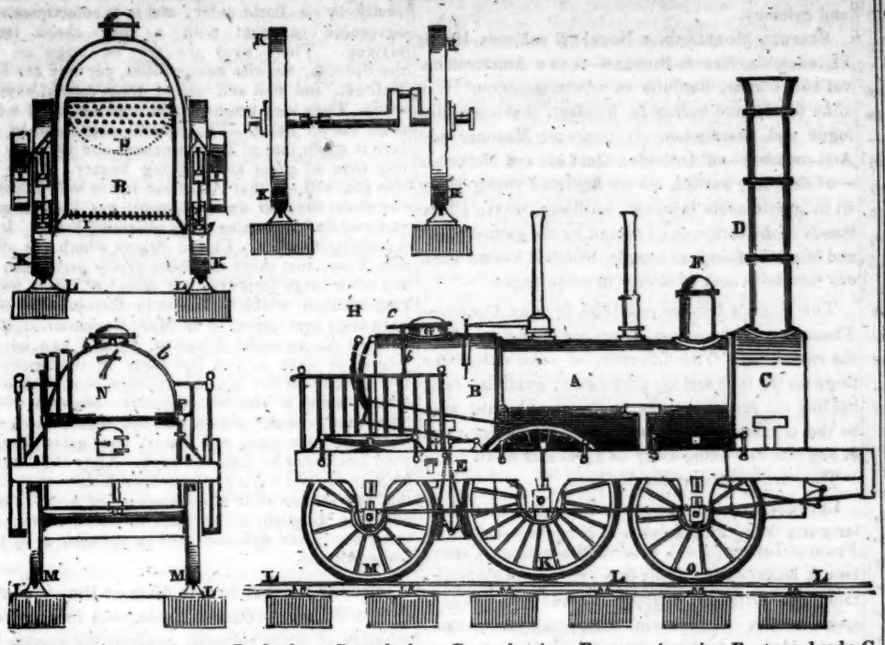
My improvement in the locomotive steam engines now in use, for the quick conveyance of passengers and goods upon edge railways, is applicable to that kind of locomotive engines which are used in the Liverpool and Manchester railway (the first of which engines was called by the name of the Planet), having the two main wheels, which are impelled by the engine, fixed on a double cranked axis, and turned round by the force of the pistons of the steam cylinders, in order to advance the locomotive engine along the edge rails, whereon the said main wheels bear. And my said improvement consists in making the said main wheels of the locomotive engine (which are fixed as aforesaid) on the ends of the cranked axis, and impelled by the force of the pistons, with plain tires to run upon the edge rails, without any projecting flanges on those tires, and applying two additional small wheels with flanges on their tires, beneath the hinder end or part of the engine, in order to cause that end of the engine, by means of those flanges, to keep straight upon the rails, as it runs along thereon, and also to bear up part of the weight of the furnace end of the boiler, in the same manner as the present two small wheels (by means of their flanges) keep that end of the engine straight ou the rails, and bear part of the weight at the chimney end of the boiler, where the steam cylinders are situated. And also consists in applying the force of small extra steam pistons, or plungers, fitted into suitable cylinders, which, by turning a cock, can be supplied when required with steam from the boiler, in order to act upon a double brake, or pair of clogs, which are applied to the circumferences of the tires of the said main wheels without flanges, and of the two said additional small wheels with flanges, so as to press the said brakes or clogs in contact with the said circumferences, and thereby cause friction and resistance, which will tend to retard the motion of the wheels, and consequently the advance of the engine, along the rails, in order to stop the same when required.

The object of my said improvement is to obviate or diminish some inconveniences which have been experienced in the use of such locomotive engines, for the quick conveyance of passengers and goods on the said Liverpool and Manchester railway, namely, that the cranked axles of the great wheels have been found liable to break, and then the engines run off the rails, and sometimes overturn, or are otherwise injured. They have, also, in some cases run off the rails when the cranked axle has been only strained, without being actually broken; also, it is found difficult to hold on with the clogs or brakes to the wheels of such locomotive engines, according to the manner whereby the brakes are usually applied by hand, with sufficient force and steadiness to retard the engines from advancing along the rails, as much as is desirable, in order to arrest their motion as suddenly as possible when they have been travelling rapidly, and particularly in the event of arriving at a broken or deranged part of the railroad, or on any other occurrence which may occasion danger of collision with obstacles or other carriages, if the motion were not stopped with promptitude; and also the boilers of those engines have burned out very rapidly, in their internal tubes, so as to have occasioned great expense and loss of work in repairing them.

My said improvement in such kind of locomotive engines will tend to obviate or diminish the said inconveniences, for by using plain tires, without flanges, for the main impelled wheels (and which has never been done before in such engines on edge railways), the cranked axles of those wheels will not be subjected to any strain endways, in the direction of its length, when the engine enters into sidings, turnings, and crossings of the rails, or passes along curvatures in the line. * * * * *

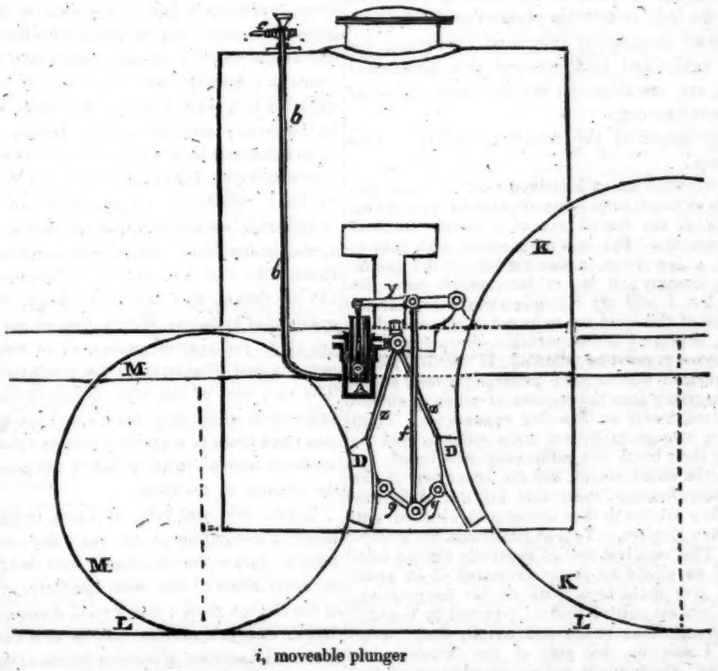
* * And by applying the pressure of steam from the boiler to act within hollow cylinders, upon pistons or plungers fitted into those cylinders, so as by the motion given to those pistons by the steam, when admitted into the said cylinders, to force the brakes or clogs against the edges of the wheels, in order to retard the same, by causing friction, and thereby stopping the advance of the locomotive engine on the rails. The stopping may thereby be effected with more promptitude, and with less trouble and effort than by the ordinary mode hitherto practised, of applying the clogs or brakes by the strength of the man who attends the engine; for, according to my improvement, the man, when warned of any danger, requiring the locomotive engine to be stopped as suddenly as possible, after having as usual stopped off the supply of steam to the engine cylinders, will have nothing to do in order to apply the brakes or clogs but to turn a cock in a small steam pipe, which conducts the steam from the boiler into the said hollow cylinders, wherein the said pistons or plungers are fitted, and the steam being (by opening the cock) admitted to act upon those pistons or plungers, will bring the clogs or brakes into action, with far more effect than can be done by the common mode of pressing them against the wheels by handle levers, actuated by man's strength; and also according to my improvement, the man, after having opened the said cock, and so brought the brakes or clogs into action by the force of steam, will have his hands at liberty to do any other duty that may be required of him whilst the engine is stopping. And note—the same effect may be produced by admitting water from the boiler, by a pipe and cock as aforesaid, into the said hollow cylinders, in lieu of steam, because the pressure of the water will produce the same effect on the pistons or plungers, and clogs or brakes, as that of the steam. And in order to release the said clogs or brakes, and take them out of action, the aforesaid cock must be shut, to cut off the communication from the boiler to the hollow cylinders, wherein the pistons are to act, and another cock being opened to permit the steam (or water) which has operated in the hollow cylinders, to escape therefrom into the open air, and allow the pistons or plungers in those cylinders to return and release the brakes or clogs. The additional small wheels which I apply beneath the hinder end of the boiler, will sustain the extra weight of a larger boiler than heretofore used, without distressing the rails; and bearing springs are to be used for the extra small wheels, the same as is now done for other wheels in the ordinary engines, and the said springs will cause all the six wheels to apply and bear fairly on the rails, and ease all jolts and concussions. The relative weights or portions of the whole weight of the engine, which shall be borne by each of the six wheels being regulated by the strength and setting of their respective bearing springs. The main wheels which are to be impelled by the power of the engine being in all cases left loaded with as much of the weight of the engine as will cause a sufficient adhesion of those wheels to the rails to avoid slipping thereon. When by virtue of my improvement a larger boiler is used, containing more heating surface than heretofore, a less intense excitement of the combustion will be required in order to produce the necessary quantity of steam for the supply of the engine, and that diminution of the intensity of the combustion will be advantageous to the performance of the engine for another reason, as well as by avoiding the heretofore rapid burning out of the metal of the boiler, because the jet of waste steam (which is thrown into the chimney to produce a rapid draft therein, and a consequently intense combustion of the fuel,) may be greatly diminished in its velocity, and thereby the waste steam will be allowed to escape more freely from the cylinders than heretofore, when a very sharp and sudden jet of the waste steam up the chimney is found absolutely necessary to excite that intense violence of combustion which can alone enable the present boilers to yield the requisite supply of steam, but that very sudden jet can only be obtained by throttling the eduction passage, and thereby impeding the free discharge of the steam from the working cylinders, so as to impair the force of the pistons; and at the same time, the excessive combustion which is excited (by so impairing the force of the pistons), also destroys the metal of the boiler in a short time. Increasing the magnitude of the boiler, giving a larger extent of heating surface thereto, and working the enlarged boiler with a more moderate intensity of fire, is the true remedy, and will save fuel as well as avoid the rapid destruction of the boiler, because the steam will be allowed to escape more freely from the cylinders. The adoption of larger boilers in the said locomotive engines, with all the advantages to be derived therefrom, as aforesaid, depends upon the application of the two additional small wheels beneath the furnace end of the boiler, because the present engines are already too heavy on the rails, and require a diminution of weight instead of an augmentation. But I wish to be understood, that I do not claim the use of six wheels instead of four, as an improvement merely for better supporting the weight distinct from other circumstances hereinbefore set forth, but I claim the using of large wheels without flanges on their tires, which wheels are to be fixed on the cranked axle to serve for the impelled wheels of locomotive engines, which are to travel on edge railways, and in conjunction therewith, (but not without that conjunction;) the application of a pair of extra small wheels, with flanges on their tires, beneath the hinder end of the boiler, with interposed bearing springs, like those of the other wheels; that application of extra small wheels with flan-

Sheet I.



References.—A, the boiler; B, fire-box; C, smoke-box; D, smoke-pipe; E, suspension pin; F, steam head; G, man hole; H, working gear; J, fire grate; K, main impelling wheels; L, M, extra small wheels; N, throttle valve; P, tubes.

Sheet II.



i, moveable plunger

ges, conjointly with the said using of large impelled wheels without flanges, being for the purpose of keeping the engine straight on the rails when it runs forward, as well as for bearing up part of the weight. And also I claim, as part of my said improvement, the application (as hereinbefore described) of the pressure of the steam or water from the boiler, to act when required in hollow cylinders on pistons or plungers, which are connected with the clogs or brakes for the wheels, so as to bring the said brakes or clogs into action by the pressure of the steam instead of by the strength of men, as heretofore done. Note—I make no claim to the use of six wheels in locomotive engines to travel on edge railways, if the impelled wheels have flanges, but only when the said impelled wheels have no flanges; and for the more complete explanation of my said invention, I have hereunto annexed three sheets of drawings, (No. 3 is omitted in the engravings,) representing two locomotive engines for the quick conveyance of passengers and goods upon edge railways, when constructed according to my said improvement.

Sheet I. contains a side elevation, end elevation, and end section of such an engine. K are the main impelled wheels on the cranked axle, without any projecting flanges on the tires, which run on the edge rails. L, M, are the extra small wheels with flanges, applied beneath the hinder or furnace end of the boiler; and o are the ordinary small wheels with flanges beneath the chimney end of the boiler, where the working steam cylinders are situated. The small wheels, o and M, with flanges, keep the engine straight on the rails as it runs forwards thereon; and the large impelled wheels, K, have only to advance the engine forwards, and to bear a due portion of its weight, without having any thing to do with keeping the engine on the rails, having no flanges which can hold laterally on the rails; wherefore the cranked axle of the wheels, K, is liberated from all stress by any lateral action of the great wheels K against the edges of the rails; and the small wheels, o M, with flanges, (which wheels have straight axles,) sustain all the stress of that lateral action.

Sheet II. contains a separate drawing of the brake or clog, which is also shown in its place in sheet I. A is the hollow cylinder into which a plunger is fitted, to act by a lever, *y*, and an upright rod, *f*, upon the two clogs or brakes, D, D, which are suspended by pendulous links, *z*, from a centre pin or bolt, E, fixed to the frame. The clogs or brakes, D D, are caused to apply to the circumferences of the tires of the wheels, K, and M, by means of links, *g*, *g*, which are interposed between the two clogs or brakes, D, D, and which links, when put down into an angle, as shown in the figure, leave the brakes or clogs, D, D, free of the wheels, K, and M; but when by opening the cock, *c*, the stream from the boiler is admitted through the pipe, *b*, *b*, into the hollow cylinder, A, it raises up the plunger therein, and that by its lever, *y*, and rod, *f*, draws up the links, *g*, *g*, towards a straight line, and then they force the two clogs or brakes, D, D, apart from each other against the wheels, K, and M, with an increased force beyond that which the plunger exerts; that increase of force being in consequence of the leverage at *y*, and the oblique direction of the links, *g*, *g*. When the handle of the cock, *c*, is turned the other way, it allows the steam to issue through an upright spout, and escape from the cylinders into the open air.

Enrolled December 3, 1833.

ZINCOGRAPHY.—It was but a few years past that we had to record an advance in the fine arts in the invention of lithography, which afforded increased facilities in the art of engraving. Lithography is now, however, likely to be displaced, at any rate to a great degree, by the invention of an ingenious Frenchman. M. Breugnot, who has succeeded in preparing a composition of metal, the basis of which is zinc, upon which drawing and writing can be effected with equal, if not with greater facility, than upon stone, and as easily applied to paper with the same machinery. The art of zincography has several advantages over that of lithography; among others, in the portability and comparative cheapness of the plates, over the necessary bulkiness and cost of stone. These plates can even be adapted to a lady's portfolio, to any thickness, and to any size—a desideratum much wanted in lithography. The invention of zincography has received the sanction of the Royal Academy of Paris, and we understand that M. Breugnot has sold the patent for Great Britain to Mr. Chapman, of Cornhill, who feels confident that he shall be able to adapt this improvement to every department in the art of engraving. In Paris they have already succeeded in printing large window blinds with one plate, and we believe experiments have been made on silk and cotton, which warrant the supposition that zincography will soon be applied in our silk and cotton printing establishments.—[Lon. Morn. Herald.]

NEW-YORK AMERICAN.

DECEMBER 13—19, 1834.

LITERARY NOTICES.

ENGLISH HISTORY, adapted to the use of Schools and Young Persons; BY THE AUTHOR OF AMERICAN POPULAR LESSONS. New York: R. LOCKWOOD.—A new school book on English history may seem unnecessary, and yet from the partial examination we have given to this one, we must say that it seems to us a well arranged and well digested compendium, in which all important facts are enumerated, and withal, the moral character and influence of the nation, and of events, are suitably dwelt upon. It is principally derived, as the preface informs us, from "Mrs. Markham's History of England," confining it however to purely English History, and referring for instance all the details of the American war of the Revolution, to American History.

THE FRANKLIN LIBRARY OF MODERN LITERATURE; Parts I. and II. New York: WALLIS & NEWELL.—These are the first numbers of a new enteprize, to be published weekly, and having for object the republication in a cheap form of "the popular NEW WORKS of the most celebrated English authors."—The two numbers before us, are devoted to selections of tales from English annuals of this year, and thus for 25 cents, (the price per number being 12 1-2 cents) furnishing the cream of these literary *bijoux*.

THE WORKS OF MRS. SHERWOOD. Vol. VII. Uniform Edition. HARPER & BROTHERS, New York.—This volume contains with many of Mrs. Sherwood's earlier stories, her latest work, *The Nun*, which is remarkable, as has been before observed in this paper, by the identity of the catastrophe of the story, with the destruction of the Ursuline Convent at Charlestown. Yet among the agents of that outrage, not one probably had ever read or heard of MRS. Sherwood's book. Human nature, however, is pretty much the same every where, and alike in Sardinia and in Massachussets, the agency of a mob is always blind and formidable.

THE QUARTERLY JOURNAL OF AGRICULTURE, MECHANICS AND MANUFACTURE, vol. I, No. II. New York: MINOR & CHALLIS.—This is a publication which cannot fail to spread light along its path, and to scatter much useful information. Its title explains its objects, and in the number before us, only the second in the series, there is matter which will be found worthy the attention of the great and numerous classes for which it is especially designed, the farmer, mechanic, and manufacturer.

THE EDINBURGH REVIEW for October, being No. 1 of vol. 1 of *Foster's Republication*. New York: T. FOSTER.—This number of the Edinburgh contains the paper ascribed to the pen of Lord Brougham on "the last session of Parliament," which so much irritated Lord Durham, as to induce him to write the letter to the publisher of the Review, which we copied some weeks ago from a London Journal. It has another most interesting article on "the Improvement of Inland Transportation and Railroads," from which we make copious extracts in our outer columns to-day. We renew our recommendation of this Republication.

LIFE OF PRINCE TALLEYRAND. 1 vol. 8vo: *Philadelphia*: CAREY, LEA & BLANCHARD.—We confess our surprise at finding such a book as this republished by so respectable a press as that of *Carey, Lea & Blanchard*. It is utterly unfit to go into any decent house: it is made up, so far as the record of the early life of M. Talleyrand is concerned, of gross and filthy details of debauchery; and in the incidents purporting to be historical, of his political career, it is unworthy of credit. *Vidocq's* Memoirs, and *McDowell's* Journal, are the only fitting types that occur to us of this slop-pail of scandal, indecency, and calumny.

STEPHEN MORELAND, a Novel; 2 volumes, 12mo; Philadelphia, KEY & BIDDLE.—A new American novel here claims, but fails to arrest attention. It is alike feeble and barren in incident, character, dialogue and description. It treats of Masonry and Anti-masonry—of Orthodox Quakers and Hicksites—of sleighing parties, where highbred young ladies sit in gentlemen's laps—of cotillions, where a lady stands in the centre to be kissed by the gentlemen—and of other *American* usages, which it has not been our fortune to hear of except in these pages.

THE SYBIL'S LEAVES FOR 1835, by MRS. COLEY.—These are Conversation Cards for young people of the two sexes. The difference of color designates those for the lady and the gentleman; and thus—each holding the proper set—cards drawn at hazard may be the occasion of producing some merriment, and at any rate of whiling away an agreeable hour.

They are printed by the Harpers.

LETTERS TO A GENTLEMAN IN GERMANY, written after a trip from Philadelphia to Niagara.—Edited by FRANCIS LIEBER, 1 vol. 8vo. Philadelphia: CAREY, LEA & BLANCHARD.—This is a very agreeable book, rambling, sprightly, anecdotical, and withall interspersed with much useful and practical information, and keen and accurate observation. It is no violation of courtesy to assume that the Ediior is really the writer of these letters—and the personal adventures, narrated without any avoidable egotism, of this intelligent, learned, and thinking wanderer, are not the least interesting portions of the volume. The views incidentally expressed concerning the people, habits, and institutions of this, his adopted country, are, we think, for the most part, just—tho' sometimes flattering.

On the subject of the American ladies, he thus discourses:

You wish the ladies described too? I know that we wish as much to become acquainted with the appearance of the female sex of a country as with their character. But this is no easier task than to give, in a few lines, a description of the scenery of a country; it is, in fact, much more difficult. Yet I will try it; only remember that descriptions of this kind are to be taken as general assertions, admitting of innumerable exceptions. To begin then.—It must be allowed, in the first place, that American women have generally a fine, and—more frequently than the women of other countries—a genteel, rarely an imposing appearance. Their shoulders are generally not wide enough, and too sloping; their busts not sufficiently developed, but the waist is small, round, and the lower part of the body finely formed; their feet are not peculiarly good—they are better than German feet indeed, and better than English. Yet so capricious are exceptions! The smallest pair of correctly shaped feet, so small as would be justly criticized if an artist were to give them to a work of his imagination, and the neatest pair of ankles, "turned by Cupid," with corresponding hands and wrists, that I ever beheld, I saw on this side of the Atlantic. A pair of feet which might induce an admirer of the beautiful to sing to them, as Conti sung only of the hands of his mistress. I will give you a letter of introduction to these lovely feet and hands and arms, if you come to this country. In the mean time I send you a glove of their mistress, which she once gave me with grace: honor it duly, and feel unbounded obligation for my parting with the memento.

Their walk is much better than the ungraceful dipping and pitching of the English ladies, which looks rather like an unsuccessful attempt at a gallop than a walk. However, for feet and walk you must go to Andalusia: what is there equal to *la gracia andaluz?*

> "Their very walk would make your bosom swell;
> I can't describe it, though so much it strike,
> Nor liken it—I never saw the like.—
> An Arab horse, a stately stag, a barb
> New broke, a cameleopard, a gazelle—
> No—none of these will do."

Their arms—where are fine arms any longer to be found if not by way of exception? Sleeves have spoiled them. Their color—I do not now speak specially of the arms—is generally delicate, which contributes to give, even to the lowest classes, an air of gentility. An English face here is known directly by its florid color; and it is sometimes very agreeable to meet with a rosy cheek lately arrived. Their eyes are not as large as the the Spanish, nor *ojos adormidillos*, yet they are fine, well cut, and well set, and of much mental expression. They look bright, and are generally of a fine dark brown color. The general expression of the face is again that of handsomeness and delicacy rather than of great and striking beauty. From all this you will see that American ladies look better in the street than in the ball-room, yet I can assure you you find there also many charming faces. It is a peculiarity of the United States which has often struck me, that there are more pretty girls than in any other large country, but fewer of those imposing beauties which we meet in Europe, and who have their prototypes in a Mad. Recamier or Tallien, or the beautiful Albanian, when I saw her in Rome, or even as you find many in the figures of the women in the marine villages near Gensano, which made a Thorwaldson rave—beauties which "try man's soul," which will not depart from the mirror of your mind, and disturb your quiet, though your heart may be firm as a rock. After all, I come back to my old saying, there is no European nation that can—taken all in all—compete for great beauty with the English, as there is no nation where so many pretty and delicate faces as are seen as in the United States.

DUNLAP'S HISTORY OF THE ARTS OF DESIGN IN THE UNITED STATES.—(*Second Notice.*)—A further examination of these volumes, confirms the opinion already expressed, that this pub ication of Mr. Dunlap will prove one of the most popular works that has for a long time issued from the American press. The work is of too comprehensive a character, however, to attempt a fair review of it in limits so restricted as ours; and we shall, therefore, only touch upon such portions as may particularly interest our readers. Among these, there are are few more acceptable to a New-Yorker, than those which relate to the three young and eminent artists, whose fame is so intimately identified with the taste and *appreciation* of this city. INMAN, and COLE, and WEIR, differ so in their respective styles, that much as each is admired, we do not recollect ever to have heard a single invidious comparison instituted between them. The soul that breathes in Inman's portraits—the life that quivers in Cole's foliage, and the *atmosphere* that embalms Weir's figures and landscapes, are all so redolent of genius, as to mark a distinct and original character in the productions of each. The age, too, of the trio, is nearly the same; the subjects in which they most excel are alike American; and there is scarcely a private collection of the works of native artists, which is not graced alike by the pictures of the three.

Inman, who was born at Utica in this State, attained a reputation at an early day, when as the pupil of Jarvis, he illustrated with bold and glowing hand some of the most characteristic passages in the Sketch Book; and a vivid scene or two in the first of Cooper's novels. He is now chiefly known as the most spirited of portrait painters, but his varied powers are sufficiently marked to have elicited the remark here recorded by Mr. Dunlap, from the lips o one of the most eminent and experienced judges of art in the country.

The versatility as well of excellence of Mr. Inman as an artist, was once expressed to me by Mr. Sully in nearly these words. "I remember going round your exhibition of the National Academy at Clinton Hall in New York, and seeing a fine landscape, I asked, 'Who painted this?' The answer was, 'Inman.' Then I came to a beautiful group of figures—'Ah, this is very clever—let us see whose this is,' I looked at my catalogue,—'Inman.' Then some Indians caught my eye—catalogue again—'Inman.' A little further on, and I exclaimed 'By George, here is the finest miniature I have seen for many a day!' it was a lady in black, 'Who is this miniature painter?' 'Inman.' His large portraits I was acquainted with, but this variety of style took me altogether by surprise."

The venerable Col. Trumbull was the first that discovered the singular merit of Cole, whose life is a per-

fect romance; but we must refer the reader to the work for the particulars. His grandfather was a Maryland farmer, but he himself, like Leslie, was born in England of American parents. He grew up amid the backwoods of Ohio, and it was in her deep forests, beneath the glowing skies of the West that he drank in that inspiration, which makes his autumnal woods and American sunset so perfect and *unique*. No painter ever dared to paint these subjects as they are until Cole's bold pencil essayed them, and with every attempt since made by others, they are still peculiarly his own. It has been stated that his forest scenes were condemned in England because her connoisseurs cannot believe such tints to exist in nature. We remember hearing an intelligent Englishman and an enthusiastic admirer of Cole prophecy this fate for his pictures, when he heard that hey were to be exhibited at Somerset House. The early school of this artist was NATURE alone, and his may account for the severity of his strictures upon the present state of art in England, written after he had had an opportunity of studying the best masters in Italy. They are thus introduced by Mr. Dunlap.

The opinions of Mr. Cole on the subject of landscape, I look upon as the highest authority: as I consider his mind of the first order, and his works in that department of art, superior to those of any painter of the present day, that have come under my inspection. His words are:

"A great deal might be said on the subjects of England and Italy; but to say that which will be most available to you may be difficult. I did not find England so delightful as I anticipated. The gloom of the climate, the coldness of the artists, together with the kind of art in fashion, threw a tone of melancholy over my mind, that lasted for months, even after I had arrived in sunny Italy.

"Although in many respects, I was delighted with the English school of painting, yet, on the whole, I was not disappointed: my *natural* eye was disgusted with its gaud and ostentation: to colour and chiaro-scuro all else is sacrificed—design is forgotten; to catch the eye by some dazzing display, seems to be the grand aim. The English have a mania for what *they* call generalizing; which is nothing more nor less than the idle art of making a little study go a great way, and their pictures are generally things "full of sound and fury, signifying nothing." The mechanical genius of the people exhibits itself in the mechanism of the art—their dextrous management of glazing, scumbling, &c. Frequent and crowded exhibitions of recently painted pictures, and the gloom of the climate, account for the gaudy and glaring style in fashion. There are few exceptions among the artists of England to this meretricious style; even Wilkie and Leslie, in their late pictures, have become more washy and vapid than in their former productions."

"These opinons of existing English art, I know may be considered heterodox; but I will venture them, because I believe them correct. The standard by which I form my judgment is—beautiful nature; and if I am astray it is on a path which I have taken for that of truth.

WEIR, who has lately succeeded Leslie at Westpoint, was born at New Rochelle in this State. His delicious Italian landscapes made him first generally known after his return from Europe; but his reputation has since then been much enhanced by several fine original productions. He has lately painted three admirable pictures for the Hon. G. C. Verplanck; and "Bourbon's last March," one of the three, is a composition that would become the hand of any master. Mr. Dunlap's opinion of Weir's merit, with an account by Dr. Francis of one of his most celebrated productions, is given in the following interesting extract:

Mr. Weir has produced a great many finished pictures since his return from Italy, several of which have been engraved. His "Red Jacket" is well known. This chief of the Senecas exhibited a fine specimen of savage manners when he came with his attendants, or companions of the forest, to the painter's room. He seated himself down on an ample arm-chair with the nonchalence of a superior, and his wild tribes-men surrounded him. "It becomes not not me," says Dr. Francis in a letter to the author, "to speak of the peculiar merits of the painting of Red Jacket, (Saguoaha, or Keeper-awake) by Weir. It is admitted, by the competent, to eclipse all other delineations of our Indian chiefs, and demands, as a work of art, no less regard than the subject himself, as one of pre-eminent consideration among our aborigines. The circumstances, however, which gave the artist the opportunity of portraying the distinguished warrior and great orator of the Senaca nation, deserves at least a short notice. An acquaintance of some years with Red Jacket, which was tempered, perhaps, more impressive in his recollection by occasional supplies of tobacco, led him to make an appointment with me, to sit for his picture upon his arrival in the city. When he came to New York, in 1828, with his interpreter, Jamieson, he very promptly repaired to the painting-room of Mr. Weir. For this purpose he dressed himself in the costume which he deemed most appropriate to his character, decorated with his brilliant overcovering and belt, his tomahawk and Washington medal.—For the whole period of nearly two hours, on four or five successive days, he was as punctual to the arrangements of the artist as any individual could be. He chose a large arm-chair for his convenience; while his interpreter as well as himself, was occupied, for the most part, in surveying the various objects which decorated the artist's room.—His several confederates, adopting the horizontal posture, in different parts of the room, regaled themselves with the fumes of tobacco to their utmost gratification. Red Jacket occasionally united in this relaxation; but was so deeply absorbed in attention to the work of the painter, as to think perhaps of no other subject. At times he manifested extreme pleasure, as the outlines of the picture were filled up. The drawing of his costume, which he seemed to prize, as peculiarly appropriate, and the distant view of the Falls of Niagara, (scenery nigh his residence at the Reservation) forced him to an indistinct utterance of satisfaction. When his medal appeared complete, he addressed his interpreter, accompanied by striking gestures; and when his noble front was finished, he sprang from his seat with great alacrity, and seizing the artist by the hand, exclaimed, with great energy, 'Good! good!' The painting being finished, he parted with Mr. Weir with a satisfaction apparently equal to that which he doubtless, on some occasions, had felt, in effecting an Indian treaty. Red Jacket must have been beyond his seventieth year when the painting was made: he exhibited in his countenance somewhat of the traces of time and trial upon his constitution; he was, nevertheless, of a tall and erect form, and walked with a firm gait. His characteristics are preserved by the artist to admiration; and his majestic front exhibits an altitude surpassing every other I have seen of the human skill. As a specimen for the craniologist, Red Jacket need not yield his pretensions to those of the most astute philosopher.

The following passage "shows up" a distinguished American trio in London, and accounts very naturally for Leslie's so soon giving up his situation at West Point:

Washington Irving, Esq., has told me that on arriving from the continent of Europe, where he had been some time, he found Newton and Leslie in the same house, and that while he was writing his Sketch Book, he saw every step they made in their art, and they saw every line of his writing. Here was a communion of mind that could not but lead to excellence. Irving's admiration of Leslie, both as a man and an artist, is extreme. A cultivated mind, purity of moral character, refined taste, indefatigable study, by which his knowledge of drawing and skill in composition were such, that having determined his manner of treating a subject, and drawn it in, no change or alteration took place; in this a perfect contrast to his friend Newton.

I have above said, that Mr. Leslie returned to London. In the only interview I had with him, which was in my sick chamber a day or two previous to his embarkation on his return, he did not express any feeling of disappointment. With the government of the United States he certainly had no cause of complaint. He was invited to West Point as *teacher* of drawing, with the same emoluments and accommodations which his predecessos had enjoyed. But his friends, anxious that he should be with them, had assured him that the teachership would be made a professorship, with additional advantages corresponding with the other professors, and that a painting room should be built for him. But in our representative government, this required an act of Congress, and the passage of the yearly appropriation bill. This act and appropriation was intended; but Mr. Leslie had taken post at West Point, at the commencement of winter, with his family, never before out of London. The winter is a trying season in a bleak situation on the Hudson—a situation at other times redundant with charms. Mrs. Leslie is a London lady, and her family remained occupants of the house left by the artist; her heart was naturally at home. Leslie, I am told, upon an answer from the Secretary at War, that he could not order a painting room built until appropriation was made for it, gladly resigned the situation, and took his family to London again, no doubt happy to escape from the bleak promontory on which they had passed a discontented winter.

There are several other favorite artists, like Doughty,—the softest painter of sleepy summer moontide, or Callin, the bold wanderer in the far West, who has been so long taking "full lengths" of the praries,—whose names seem to claim a passing paragraph. But they all receive due honor from our author, and we refer the reader to his work accordingly. The encomium passed by Mr. Dunlap upon Miss Hall, will be fully acknowledged by all admirers of miniature painting who have had an opportunity of observing how the exquisite touch of Malbone's pencil lives again in her gifted hand.

Among the most interesting passages of the book, are those relating to Allston, of whom the following, among other anecdotes, is told:

Mr. Allston returned to America in 1809. When Robert W. Weir, Esq. of New York, was studying his profession in Rome, many years after Allston left it, the artists of Rome asked him after an American painter, for whom they had no other name than the American Titian. When Weir mentioned the name of Allston's they exclaimed "that's the man!"

Some agreeable specimens of this eminent artist's happy poetical vein are given.

And as the "Paint King" belongs to our subject, the reader may, if he pleases be amused with this playful ballad in imitation, and in burlesque of Scott's "Fire King," Lewis's "Cloud King," and other sportive effusions much read at that time. It commences as follows:

Fair Ellen was long the delight of the young,
No damsel could with her compare;
Her charms were the theme of the heart and the tongue,
And Bards without number in ecstacies sung,
The beauties of Ellen the fair.

Yet cold was the maid; and though legions advanc'd
All drill'd by Ovidean art,
And languished, and ogled, protested and danced,
Like shadows they came, and like shadows they glanced
From the hard polish'd ice of her heart.

Yet still did the heart of fair Ellen implore
A something that could not be found;
Like a sailor she seem'd on a desolate shore,
With nor house, nor a tree, nor a sound but the roar
Of breakers high dashing around.

From object to object still, still would she veer,
Though nothing, alas, could she find;
Like the moon, without atmosphere, brilliant and clear,
Yet doom'd, like the moon, with no being to cheer
The bright barren waste of her mind.

It is with pain after such agreeable matters, that we feel compelled to advert to the spirit—any thing but gentle or just—in which the name and works of Col. Trumbull are uniformly mentioned in this work; and especially to that passage in the second volume which has called forth the following explanation from Col. Trumbull:

To the Editor of the N. Y. American:

38 BROADWAY, NEW YORK, 9th December, 1834.

MY DEAR SIR—I have been looking over Mr. Dunlap's work on the Arts of Design in America, some pages of which I find he has devoted to a notice of me and my works—written with as much accuracy as could be expected from the mode in which the materials were collected, from the shreds and patches of detached conversations reported to him from memory, and put together with a studied spirit of ill-will. To this I have no objection, nor to the bitterness with which he criticises some of my professional works, for to Artists in particular is applicable the admirable rule given by our Saviour on another occasion, "*By their works ye shall know them.*" The works of Mr. Dunlap and myself will be judged by future and perhaps more impartial judges than we are of each other.

But in his notice of Mr. Durand, vol. 2, page he has contrived to drag me again before his readers,

in a way calculated to leave an impression on their minds that I have lately had the baseness to cause to be engraved on the hilt of a sword—a *falsehood*, to gratify my own vanity. It is due from me to his readers, and to my own character, to take notice of this.

All who have read the history of the War of the Revolution, know that in 1778 a plan was formed for the recovery of Rhode Island from the British, who had taken possession of it at the close of 1776. A French fleet of twelve sail of the line, from the West India station, under command of the Count D'Estaing, was to co-operate with the American force commanded by General Sullivan. This fleet appeared off New York in August, and thence sailed to Rhode Island.

It is true that I had resigned my situation in the Army in the Spring of 1777. But I had not so soon lost my relish for "the glorious pomp and circumstance of war" and therefore I, on this occasion, offered my services to Gen. Sullivan, in the character of a volunteer Aid-de-Camp; my offer was accepted and I accompanied the General in this character. The French fleet was soon drawn off from their co-operation by a manoeuvre of Lord Howe, and our Army alone continued the siege or blockade of Newport until the close of August, when the attempt was abandoned, and our troops retired to Butts Hill, at the north end of the island, near Howland's Ferry. On the following morning, I believe, the 29th August, our rear guard posted on Quaker (otherwise Windmill) Hill was attacked, soon after daylight: and Gen. Sullivan wishing to avoid an action on that ground, sent me with orders to the officer commanding the guard (Col. Wigglesworth) to withdraw. In this affair Col. Tousard lost an arm. Capt. Walker, of Col. Henry Jackson's Regiment, was mortally wounded, and some other loss was sustained: but the Guard was saved; the day passed off in skirmishing; and towards evening the enemy pushed our right wing, so far as to endanger themselves. I was ordered to lead Gen. Lovell's brigade of Massachusetts militia, who formed the right wing of our second line, to aid in repulsing them: they did not wait for us to come in contact, but as we advanced, they retired behind the crown of a hill. I rode forward to reconnoitre, and fell in with a solitary fatigued German soldier, from whom I took the sword in question, and ordered him to the rear, while I rode forward to the crest of the hill to look for the enemy;—they had been repulsed by other troops, and were forming, but vacillating:—I galloped back to Gen. Lovell; but his column, satisfied with the retreat of the enemy, had dispersed without the shadow of order. I had meditated a movement whose success depended upon celerity; and as it would require *time* to reform the column, I gave up my purpose, and we withdrew.

General Lovel is long since dead; but with the talents which he has shown for investigation, Mr. Dunlap may perhaps hunt up some survivors of that day, and ascertain the correctness of this statement.

I am, my dear sir, faithfully yours,

JOHN TRUMBULL.

Nothing can be clearer or more unquestionable than this statement—the substance of which we cannot doubt Mr. Dunlap will feel the justice of incorporating in the next edition of his book.

TALES OF THE BORDER; by James Hall, author of Legends of the West, &c. We gladly welcome this handsome volume by the most successful painter of frontier life that has yet written. We shall take an early opportunity to examine its contents.

CHAMBER'S EDINBURGH JOURNAL. R. J. Pritchard, 2 Hanover Square, and 45 Ann street.—This is a handsomely printed quarto, containing four numbers of the entertaining original miscellany of the work whose name it bears. The whole for 12 1-2 cents.

DUNLAP'S HISTORY OF THE RISE AND PROGRESS OF THE FINE ARTS.—In our second notice on Saturday, of this attractive work, we took occasion to introduce a letter from *Col. Trumbull*, setting himself right before the public in a transaction adverted to by Mr. Dunlap. We now have the pleasure of subjoining a letter from the latter gentleman expressing his readiness to incorporate the letter of Col. Trumbull, in the next edition of the work:

To the Editor of the New York American:

MONDAY NOON, DEC. 15, 1834.

Dear Sir: I have this moment seen the American of Saturday, in which appears a letter signed John Trumbull, objecting to a passage in my history of the Rise and Progress of the Arts of Design, and giving a narrative of a transaction which explains what had appeared to me a contradiction of a statement I had made in the book.

As in my limited reading I have not found the gentleman's name in any history of our revolution, I must be excused for relying upon a statement which I have supposed came directly from himself for the purpose of publication; and when the date of an inscription was mentioned to me, which appeared to contradict the record of events which I had made on such authority, I could not but think it an error in the date given, and felt myself called upon to show my authority for the dates and facts as I had published them. The narrative which you have given in the American of Saturday perfectly explains the discrepant dates; and it will give me pleasure in a second edition of my work (which from the demand for it in this city and elsewhere will probably soon be called for) to insert the narrative, as now first published, of a transaction so honorable to the gentleman; and by giving it in its proper place and under its proper date, the passage objected to being rendered superfluous and irrelative, will be expunged. I remain yours truly and gratefully.

WM. DUNLAP.

FOREIGN INTELLIGENCE.

LATER FROM EUROPE.—By the *Europe*, packet ship, *Maxwell* Master, of 16th ult., from Liverpool there are London dates of the 15th. Paris 13th, and Madrid of 8th ult.

In England the death of Earl Spencer, father of Lord Althorp, had been the signal of the dissolution of the Ministry—such at least is the import of the two subjoined paragraphs, from different London papers of the 15th:

[*From the London Morning Chronicle Nov.* 15.]

"We have to communicate the astounding intelligence, that Lord Melbourne's Administration has ceased to exist. His Lordship repaired to the King on Thursday, and returned last night to announce to his colleagues the event. His Majesty, we learn, expressed no dissatisfaction with Lord M's. administration, but he let it be understood that he considered it at an end with the death of the late Earl Spencer, and the consequent removal of the present Earl to the House of Lords."

[*From the London Times, Nov.* 15.]

We have no authority for the important statement which follows, but we have reason to believe that it is perfectly true. We give it without any comment or amplification in the words of the communication which reached us at a late hour last night. "The King has taken the opportunity of Lord Spencer's death to turn out the Ministry; and there is every reason to believe that the Duke of Wellington has been sent for. The Queen has done all."

There must at any rate be a new leader in the House of Commons, as Lord Althorp goes up of course to the other House. It does not however seem probable, in the existing state of public opinion in England, that the Duke of Wellington can be charged with the formation of a new Ministry. We should rather incline to the belief that Lord Durham would be able—backed as he seems to be by the popular voice—to force himself and friends upon the King. In that event Lord Brougham would be obliged to retire.

It is stated by the Journal of Commerce, that the Chambers were convened for 1st December, instead of 29th; and it is inferred that this may have been done at the urgent solicitation of our minister at Paris, with a view of carrying into effect the American treaty.

It is somewhat remarkable, that in the new French Cabinet, as set down, there should be two persons nearly connected with America. *M de Bresson* was long resident at Washington as Secretary of Legation, and married a daughter of Mr. Justice *Thompson*, of the Supreme Court of the United States, though he is now a widower.—Gen. *Bernard* was employed for many years by this Government with the rank and pay of a Brigadier General, as an Engineer in constructing the fortifications of the sea coast. On the part of this latter gentleman certainly, and we presume as much of the former, we know the most friendly feelings towards this country to exist; and are quite satisfied, that no efforts will be wanting on his part, compatible with fidelity to his own country, to preserve a good understanding with ours.

ONE O'CLOCK.—Our papers by the Europe are just come to hand, and we find by the Courier of 14th, that the Paris *Moniteur* had published officially the list of the Ministry as given below.

NEW FRENCH MINISTRY.—The new French Ministry is composed almost entirely of fresh materials,—M. Persil being the only member of the Ministry who is retained. It is as follows:

The Duke of Bassano, Minister of the Interior and President of the Council.

M. Teste,	Minister of	Commerce.
Mr. de Bresson,	"	of Foreign Affairs.
Gen. Bernard,	"	of War.
Charles Dupin,	"	of Marine.
M. Passy.	"	of Finance.

It is not supposed that this change of Ministry indicates any change of policy in the affairs of the Government. Its annunciation, however, occasioned a momentary decline of the funds.

LONDON, Nov. 14.—The King of the Belgians opened the session of the Chambers, on Tuesday last, in a Speech, which, like most Speeches from the Throne, deals only in those generalities which cover insignificance of statement with pompous verbiage, and render it impossible to collect from the most careful perusal of its high sounding phrases any definite meaning.

LONDON, Nov. 14.—The French papers of Tuesday bring accounts from Spain of the 5th instant, one day later than our own accounts published yesterday. The Journal des Debats states that a courier, who left Madrid on the 4th instant, brought intelligence that 78 members of the Chambers of Procuradores had declared, in an address to the Queen Regent, that they felt themselves compelled to refuse all support to the Government, if its system were not changed. This step was said to have produced at Madrid a great sensation. General Valdez had been named Minister of War, in place of M. Zarco del Valle. M. Medrano would replace M. Moscoso.

Our Bayonne Correspondent transmits to us a copy of the proclamation of General Mina on entering on his command. He promises pardon and oblivion to the insurgents who should submit, but declares a war of extermination against the contumacious. Some disturbances had taken place in Catalonia. On other points the Carlists were displaying renewed activity.

BAYONNE, Nov. 5.—Gen. Mina entered Pampeluna on Thursday the 30th ult. at 7 o'clock in the evening, but did not make his arrival known until the 1st inst. The General thought proper to repair thither *incog.*, in order to avoid the feasts which the inhabitants were preparing for him, and took up his residence in a private house of the town, to the great mortification of the ladies of Pampeluna, who had handsomely furnished the *Palaiso* for his reception.

It is now clearly understood that no call for French assistance has been made nor will be. You may depend on what I say, though I have no doubt many letters from this will contradict me on the subject.

The Monitor of Thursday, received by express with other papers, contains the following:—"The following telegraphic despatch dated Madrid 8th addressed by the French Ambassador in that capital to the Minister of Foreign Affairs, was received by the government yesterday."

"The Chamber of Procuradores have adopted the amendments made by the other Chamber in the Foreign Debt Bill. Thus the Guebhard Loan is acknowledged."

Negotiations for the marriage of the Queen of Portugal to the Duke of Leuchtenberg go on prosperously.

The foreign news of yesterday must be looked on as of more than usual importance. Hence we have gone through the papers with care, and present the result, as we collect it.

With regard to the English ministry, the speculations of the London press are, that Lord Melbourne will still remain Premier, that Mr. Spring Rice as

Chancellor of the Exchequer, and Mr. Abercrombie, as one of the Secretaries, will lead in the House of Commons, that Lord Spencer will probably go to the Admiralty, and Lord Mulgrave to the Colonial Department. Such an arrangement would leave nothing to hope for Lord Durham and his friends, and nothing to fear for Lord Brougham.

As to the French Cabinet, it is as mentioned yesterday. In addition, *Gen. Bernard* is to be created Peer of France, and discharge *ad interim* the duties of foreign as well as war Minister, until *M. de Bresson* can return from Berlin, where he is Minister.

M. Teste, in addition to the ministry of Commerce, is to be *ad interim* Minister of Public Instruction. The Chambers were certainly to meet on the 1st instant.

In Spain civilization seems retrogading. The Councils of the Queen are inefficient and distracted, while the civil war is carried on in a spirit that disgraces the era and the name of man. Allusion was made in our extracts yesterday, to *Zumalacarreguy's* success over *Gen. O'Doyle*, which caused the dismissal at once at Madrid of the Minister of War, *Zarco del Valle*. The authorities at Madrid published an account of it, representing it as a mere skirmish of little importance. We subjoin *Zumalacarregny's* account, giving a quite different aspect to the affair. The cool brutality with which this Carlist Chieftain records the shooting in cold blood of *Gen. O'Doyle*, and the humanity which only gives quarter when "tired of killing," present in striking relief the nature of this contest.

From the same respecting the action of the 28th, near Vittoria.

"Dear Friend Echeveria—I beg you will place in the hands of his Majesty the accompanying. I have not time to write all I could wish, and on that account I do not forward the official details. The Marquis de Valdespina has not left my side during the two glorious actions, and Zavalia was with the advance, executing my orders.

"To-day the noted O'Doyle, his brother the Captain, and other officers were shot. The field of battle presents a horrid sight. The number of prisoners is very great. To-morrow, according to the orders which I receive here, I shall be able to manage the interview with his Majesty. Adieu, &c.

(Signed) "Thomas Zumalacarreguy.

"*October* 28, 1834.

"To Don Jean Echeveria, *President of the Governing Junta of Navarre.*

"P. S. Tired with killing, I ordered quarters to be given to the prisoners."

(Enclosure to his Majesty.)]

"*Heredia, 7 o'clock at Night, Oct.* 28, 1834.

"Sire:—The God of Armies has granted two consecutive days of glory to the arms of your Majesty. Yesterday the revolutionary forces, commanded by O'Doyle, were destroyed. This rebel fell into our hands, also, two field-pieces, a stand of regimental colours, and more than 400 prisoners. The number of the killed was horrid, as it exceeded 500.

"To-day being occupied in the reduction of some fugitives who fled away from the action of yesterday, and had taken refuge in the town of Arieta, a strong column made its appearance, proceeding from Vittoria, and commanded by the traitor Osma. Being gallantly attacked by our brave men it was driven back with great loss, as the number of killed exceeds 500, and the prisoners 450. Your Majesty's troops followed the enemy close to Vittoria.

"This occupation, Sire, has been the cause of my not proceeding to visit your Majesty, as I had offered to do, and to-morrow, most probably, I shall again be deprived of this honour, owing to its being necessary for me to observe the column of the rebel Oraa, and of which, at this moment, I know nothing.

"At your Majesty's royal feet, &c,

"Thomas Zumalacarreguy,"

SUMMARY.

The Nineteenth Century.—We have seven or eight communications on our table from different correspondents, rebelling against Professor Kemp's decision by authority, as to the proper century in which 1st January 1800 is to be classed. As, however, the discusion can in no wise affect the fact, and is not likely now,—any more than at the period in question, when it was long and warmly conducted,—to settle opinion in relation to it, and as moreover current affairs make such a demand upon our columns, as to embaraass us daily in the choice of what to insert and what to omit,—we must postpone to the commencement of the next century, the discussion of the question, when it does in truth begin.

Hamilton's Monument.—For several days past a number of men have been employed in raising a granite pillar in the ground area of the Merchants Exchange, the head of which perforates the floor of the great room above. This work is to sustain a full lenth Statue of Gen. Hamilton, procured by an association of gentlemen, who several years ago subscribed between four and five thousand dollars for this purpose. The Statue is of pure white marble from under the chisel of our fellow citizen Ball Hughes. It is to stand upon a pedestal of blue granite, rising above the floor about six feet.—[Jour. of Com.]

Real Estate at Jamaica.—The great growth of this city and Brooklyn, is felt in its effects upon the value of property in neighboring villages, and in none more than in Jamaica, with which a railroad to connect it with Brooklyn, is in progress, to be finished in the course of the next summer.

The Eclipse.—I observed the last Solar Eclipse at one of the principal stations of the Coast Survey, upon Westhills, Huntington township, Long Island, in latitude 40 deg. 48′ 47″ 1-8 by the observations made there, and in longitude 4h. 53m. 52s., 7 West of Greenwich, as given by the preliminary calculations of the C. S. triangulation from New York.

The mean time was, 1834, Nov. 30th, at 1h. 09m. 53s., 44 beginning; and at 3h. 45m. 18s., 55 the end.

F. R. Hassler.

The Steamboat *William Gibbons*, arirved last night, bringing us Charleston papers of Saturday afternoon. They confirm the agreeable intelligence communicated by the National Intelligencer, of a complete reconciliation between the *Nullifiers and Union men* of that State.

Landlords and Legislators.—The Richmond Whig states that the landlords residing at the seat of Government of Missouri having combined to charge five dollars per week board, resolutions were introduced in both Houses, for changing the place of holding the Session in order to escape the imposition! In the Senate, the proposition was negatived 10 to 19. In the House, it was debated from time to time, and skilfully brandished over the heads of the landlords, until the latter, thoroughly alarmed, reduced board to four dollars per week.

The Ship Nashville, from this port, arrived at New Orleans on the 29th ultimo. The Rev. Mr. Parker, who was a passenger, was landed about twelve miles below the city. Letters mention that a carriage had been sent to convey him to the city. This is the gentleman whose sermons at the North, descriptive of the state of society in New Orleans, have been so misrepresented, as to occasion much excitement against him in New Orleans.

Official.—The Government has been officially informed, that the American schooner Mexicana, Graham, had arrived at Bahamas, from Castle Island, having been got off by the wreckers, with an augur hole found bored in her botton.

New Orleans, Nov. 26th.—Ice was formed here last night. This fact in itself, is not to be regretted bnt should a spell of warm weather come before the Sugar Planters shall have finished grinding, the cane will sour, and several thousand hogsheads will have to be deducted from the sum total of this year's crop.

It is believed that within the last sixty days, a sum little less than five millions of dollars has been paid for Cotton in this city. Half a million of this money has probably been appropriated towards paying the people of New Orleans, for their trouble in one shape or other.

In speaking of the inauguration at New-Orleans of the *plaster cast* of a bust of Napoleon, the New-Orleans Advertiser says:—"The farce was amusing, if not imposing, and we must be contented to know that we have played the fool in a manner that could not be equalled, and would not, perhaps, be attempted in any other city in the Union."

The ship Ninus has sailed from Norfolk, with 126 manumitted slaves, to make a settlement at Bassa Cove, Africa, under the patronage of the Young Men's Colonization Society of Pennsylvania. The Colony is to be called *Penn Sylvan*. It is intended that another expedition shall be sent within three months, of manumitted slaves from Georgia.

Loss of the Packet ship Jupiter.—*From Africa.*—The brig Ruth, Taylor, from the West Coast of Africa, arrived yesterday at Philadelphia. In this vessel came passengers, John Hanson, Esq. and Capt. A. S. Hussy; and the crew of the ship Jupiter: a colored man, belonging to Maryland, one of the emigrants to Cape Palmas, was drowned on the 7th of October last, coming out Bassa Bar. He was on his way to his family.

Since the above was in type we have been favored with several letters from Monrovia detailing the particulars of the loss of the packet ship Jupiter, Captain Knapp.

The Jupiter sailed from New York for Liberia, in June, with passengers for the Colony. She had a fine run of 27 days to the Cape de Verd Islands, and met with no accident except the loss of one of the seamen, who fell from a spar. From the Cape de Verds they had light winds to the coast of Africa, and arrived at Monrovia on the last day of July, and on the first of August all the passengers were safely landed. They immediately proceeded to the government house, where a hymn was sung, composed by Dr. Skinner, one of the passengers.

The letter adds, "that out of all the passengers that went out by the Jupiter on the former voyage, Miss Farrington is the only one that survived; that lady was in good health.

The following is an extract of a letter from the supercargo, written at Monrovia (without date.)

"After landing our freight and passengers we proceeded to windward as far as Manna river. We had a tremendous storm on the nights of the 14th and 15th. We were obliged to let go our two best anchors, with 70 to 90 fathoms of chain, veered away on each. On the morning of the 15th, we dropt the stream anchor, the vessel still drifting, every sea making a breach over, when at 3 o'clock, she struck, with a tremendous crash, and carried away her rudder. In fifteen minutes she again struck, at which time we were holding on to the main chains, with the expectation that the mast would go by the board.

We stove the water casks on deck to make her strike easier, and cut the stream cable to let her drift as near shore as possible, but she continued to strike at intervals till daylight—every moment expecting to be our last. At this period we found ourselves but a short distance from shore, and in the course of the day effected a landing with some clothing and provisions, but the natives stole both from us. After enduring much from hunger, thirst and fatigue, we arrived here on the 30th August, where we have suffered from fever, of which Mr. Kyon, the first officer, and one seaman, have died."

The Jupiter and her cargo are insured.—[Commercial.]

The Great Wall of China.—Even when united under one emperor, China trembled at the Tartars of the desert. About two centuries before the birth of Christ, She-hwang-te (the book burner) construc. the great wall of China, to prevent their incursions. This wall, which has always been considered one of the world's wonders, is fifteen hundred miles in length, of great height and thickness, furnished with fortresses and towers innumerable, and is carried with singular skill over mountains and rivers, as well as across the plains and valleys. Lord Maccartney exclaimed on seeing it, that it was certainly the most stupendous work of human hands, and he rationally concluded that, at the remote period of its building, China must have been a very powerful and civilized empire. Dr. Johnson was accustomed to say of it, that it would be an honor to any man to say that his grandfather had seen the great wall of China. Mr. Barrow, who saw it with Lord Macartney, went into some amusing calculations as to the quantity of the materials it contains. According to his account, all the matirils of all the dwelling houses of England and Scotland, supposing then at that period (at the and of the last century) to amount to 1,800,000, and to average 2,000 cubic feet of brick work or masonry, would be barely equivalent to the bulk of the wall, without taking in its fortresses and towers, which he calculated contained as much masonry and brick-work as all London did at that time. Stupendous as was the work, it failed in its object.

ARRIVAL OF THE SHIP UNITED STATES.—The United States frigate United States, Captain Ballard, arrived on Wednesday, 10th, from the Mediterranean, having sailed from Mahon on the 26th October, and passed the rock of Gibraltar on the 28th.—Left at Mahon the Delaware 74, Captain Nicholson, and United States schooner Shark, all well. The John Adams sailed for Marseilles on the 22d of October. The cholera had much subsided at Mahon when the United States left.

The United States frigate *United States* has come up, and we annex a corrected list of her officers.

The *United States* beat in over the bar off Sandy Hook at two-thirds flood tide, making eleven tacks, and drawing at the time 22 feet 10 inches water.—This certainly does not look as though this harbor were, as it has been the aim in some quarters to represent it, inaccessible to ships of war of the largest class.

OFFICERS OF THE UNITED STATES.

Commander—H. E. Ballard Esq.

Lieutenants—F. Buchannan, G. A. Magruder, T. O. Selfridge, A. K. Long, and S. S. Lee.

Surgeon—S. Rapalje.

Purser—J. N. Todd.

Sailing Master—F. W. Moores. *Second Master*—T. A. Hunt. *Chaplain*—C. S. Stewart. *Assistant Surgeon*—J. C. Spencer. *Passed Midshipmen*—William A. Wurts, Alberto Griffiths, Oliver S. Glisson, John J. Glasson. *Midshipmen*—C. Richardson, R. D. M'Donald, M. S. Pitcher, R. Bache, A. F. V. Gray, D. D. Porter, R. L. Tilgham, W. S. Williamson. J. L. Heap, A. M'Lane, W. B. Beverly, D. Lynch, J. M. Frailey, J. Contee, T. W. Magruder, T. W. Cumming, M. Donaldson. *Boatswain*—G. Blanchard. *Sailmaker*—J. Beggs. *Carpenter*—P. H. Dee. *Gunner*—S. G. City. *Officers of Marines*—B. Macomber, Captain; T. W. Young, 2d Lieutenant.

Passengers—W. E. McKenney, E. Ridgeway, W. G. Woolsey and J. L. Lardner, Lieutenants. S. T. Gillet, Passed Midshipman. E. C. Kennedy, Midshipman.

[From the Courier and Enquirer.]

To the Right Reverend and Reverend the Clergy of the City of New York:—

REVEREND SIRS,—By the returns of the last year it appears, above twenty-four thousand persons received alms in this city during the winter. Such return is independent of the vast numbers to which a truly benevolent and Christian sympathy afforded relief in private.

I shall not offer the incense of praise to those actuated by principles, which amply repay the feeling heart, engaged in such Heavenly acts of mercy. But, Reverend Sirs, I humbly and respectfully venture to address you, that this active stream of benevolence which runs down our streets, may be so directed as not to cherish vice, promote idleness and profligacy, and generate the very misery which calls it forth.

My humble suggestion is, that while all cases of distress shall be enquired into and relieved; yet in doing so, that the objects of such sympathy may be raised from their dependent state, and that in the dispensation of aid, idleness and vice shall not be generated but repressed. Without further preface, I beg leave to submit for consideration, that each Church or Congregation in this city, shall nominate two of their party to attend at a meeting on——— evening next, the——instant, at——, to take into consideration the following measures, or such others as in their united wisdom should seem calculated to obtain the end in view.

1st. That the Commissioners of the Alms House be requested to take a share in the direction of the proposed measure, and to furnish a clerk and apartment at their office, in the Park, to which all communications shall be directed, for the peculiar duties of the object in view.

2d That all persons addressing letters, petitions or applying for relief, those applied to should forward such applications with the name of the persons seeking aid, the number of their residence, &c. to the clerk, at the Alms House—by whom such applications shall be forwarded to the visitors of the district in which the applicant resides; as also to the congregation of which the applicant is a member.

3d That each church or congregation shall appoint a number of their members to the peculiar duties of visiting the distressed, and those in want, so that two, at least, shall be at all times prepared to attend on the Lord's day, from two to five o'clock, and on Wednesdays, from four to six o'clock, upon being notified so to do, by the clerk of the institution.

4th That every yearly subsriber of one dollar and upwards shall have the liberty of returning to the office the name and residence of any person they deem an object of distress, as well as of all who may apply to them for aid.

5th That a weekly statement shall be made of the cases of distress, a statistical account kept of the causes which led to it; the denomination to which the applicants belong notified, so that permanent aid may be afforded—avoiding however, all exposures not necessarily called forth.

9th That all cases of imposition and profligacy shall be published, describing the person so accurately as to check imposition.

Expected consequences.—That the evils arising from vagrancy, among which the greatest are the demoralization of the children, would be checked, those exhibitions of wretchedness and distress rendered useless, which are adopted to excite compassion—while at the same time every benevolent character would have the consolation to know that those who applied to them would be relieved, if worthy of it, and that by their causing enquiry to be made, they were not turning aside from the poor, but from the hypocrite and imposter, the promoters of crime and infamy.

The visiting on Sunday would enable the visiters to form a correct estimate of the persons they visited, and serve as a check on dissipation; would tend to preserve the youth from a total disregard to religion; would afford an excellent opportunity of giving advice as to the children, and in various ways prove salutary to the family,

The various denominations are invited, in the hope that benevolence and real Christian principles will actuate all in a work of this nature, and not a spirit in any way sectarian, to mar that charity which is the most striking feature of general christianity.

The editors of the several papers and publications in this city, are requested to give place to the foregoing, with a view to any further suggestions and a full examination of a most important subject.

Prof. Vethake has been elected President of Washington College, Va. We do not know whether he will accept the station.

Census of Michigan.—Acting Governor MASON transmitted a special message to the legislative council of Michigan on the 18th ult., communicating, for the information of that body, the result of the census of the territory, taken in conformity with an act of the council, so far as returns had been received. No returns had come in at that date, from the counties west of Lake Michigan; but those from the peninsula alone, exhibited a result so far beyond the number required to entitle the territory to admission into the Union, under the ordinance of 1787 (60,000,) that the Governor conceived it unnecessary to delay urging upon the council preliminary measures necessary for the formation of a state constitution. With this view, he recommends the calling of a convention, at an early day; and as a further preliminary step, that a memorial be sent to Congress, to set off a separate and disttinct territorial government for the country lying West of Lake Michigan, and now included in the territory, which he represents as desired by the citizens of that section.

It appears from the message, that the population of the peninsula alone, amounts to 85,856. By the census of June, 1830, taken under the authority of the United States, the number of inhabitants in the peninsula was about 28,000; and in the whole territory 31,689—showing more than a three-fold increase in about four years.

Application has already been made to Congress for the admission of Michigan into the Union, and the case is among the unfinished business of the last session.

The city of New Orleans has been presented with a bust of Napoleon, by *Dr. Antomarchi*, one of the medical attendants of the deceased Emperor, which seems to have thrown the Common Council into ecstacy. According to the *New-Orleans Courier* of 22d November, the Clergy, the Mayor and Corporation, the Governor, the Judges, Officers, &c. &c were to meet on *Sunday, the 23d!* at the City Hall, in order to receive with all honor the aforesaid bust and its donor! We wonder whether Marseilles or Bordeaux would thus turn out to receive a bust of Washington.

Total Eclipse of the Sun.

MILLEDGEVILLE, (Geo.) Dec. 2.

The Solar Eclipse.—Having a perfectly clear sky last Sunday, we, at Milledgeville, in common with all others we presume in the track of the total obscuration, had the full enjoyment of that sublime phenonenon. Nor was the rare occasion lost to science. Mr. Nicollet, a distinguished Astronomer from Paris, now on a scientific tour through the United States, took this place on his way to the West; and was assisted by Drs. Dugas and Ford, of the Medical College of Georgia. Being well provided with appropriate instruments, we doubt not, their observations were accurate and satisfactory, and will probably tend to advance several branches of science. Among which, one thing, interesting to the State, we presume will be, the exact ascertainment of the lattidude and longitude of its capital.—This, and any other results that we may be able to procure, we shall of course be happy to communicate to our readers.

We were prepared for a magnificent spectacle, but the event outwent our anticipations. With thousands of others, we watched the instant when the last beam was shut out, rendering the planetary moton *visible*. Then ensued an interval of more than a minute, of indescribably awful grandeur. A pall of funeral black drawn over the sun, whose effulgence still broke off around it; and then the first gush of light as it opened out to us for that little instant, while the naked eye not yet overpowered, could still be fixed on the whole orb of the moving moon. The universal twilight, the appearance of the stars, the rosy hue like morning, all around the horizon, the sudden chill of temperature, showed for the only time in most lives, how it would be, if the sun should be stricken out in mid-day. It was a spectacle that terrified the savage, and astonished the vulgar eye. It elevated and strengthened all human conception of omnipotent power, and showed forth, in the wonderful accuracy, even to a second, of the astronomical predictions of the event, another of the triumphs of that grandest and most exact of the sciences.

The line of total occulation, seventy miles wide or more, cuming from the Pacific and crossing our western wilds, and the back parts of Mississippi and Alabama, took through the central region of Georgia, and thence to the Atlantic Ocean. Being visible in no part of Eupope: Georgia, and a small corner of South Carolina, was the only part of the globe at all favorable to observation; and we are rejoiced to learn that the opportunity has not been neglected. We hear of gentlemen from distant places, at Beadfort and at Ebenezer, near Savannah, and probably at other points, whose simultaneous labors will tend to correct or to corroberate each other.

P. S. Having called on Mr. Nicollet, he kindly furnished us with such of the results, interresting to this section of the country, as could be made out, without detailed and protracted calculation. They will be found below.

Mr N. took occasion to remark on the great merit of Pain's American Almanac; the astronomical records of which, he says, are not surpassed in accuracy by the celeblated Ephemerides of England, of France, or of Germany.

ASTRONICAL OBSERVATIONS.

Of the Total Eclipse of the Sun, made the 30th Nov. 1834 at the State House, Milledgeville, Geo.

	M.	M.	S.	
Beginning of the Eclipse,	0	15	28	Mean time at the State house
Beginning of total darkness,	1	24	53	
End of total darkness,	1	44	08	
End ot the Eclipse,	3	5	42	

A differance will be perceived between these calculations, and those set down in Paine's American Almanac; but the latitude and longitude of the capital of Georgia, now ascertained, could not be accurately known to that gentleman. The Almanac is correct according to the best data then extant.—[Journal.]

BROOKVILLE, IND., Nov. 29th.—*Hogs!!*—For the last three weeks our eyes have been greeted with scarce any thing except *vast droves* of the *swinish multitude*. Within that time, "from our own idea of things," and from the calculations of others there must have passed thro' this place, upwards of THIRTY THOUSAND HOGS; all wending their way to Cincinnati, the greatest hog market, we would venture to say in the known world. All these hogs are from a small section of this State. We are told by the oldest settlers,—there never was as many hogs drove through this place in one year, before, as has been within the last three weeks. Some days it seemed as if the vast arena of nature's store house was filled with Hogs.—[American.]

23d CONGRESS—Second Session.

Tuesday, Dec. 11—IN SENATE.

In pursuance of the resolution passed yesterday, the Senate proceeded to ballot for its Standing Committees; and the ballots resulted in the choice of the following gentlemen, to serve for the present session.

Foreign Relations—Mr. Clay, Chairman; Messrs. King, of Georgia, Mangum, Sprague, Tallmadge.

Committee on Finance—Mr. Webster, Chairman; Messrs. Wright, Tyler, Mangum, Ewing.

Committee on Commerce—Mr. Silsbee, Chairman: Messrs. King, of Alabama, Waggaman Sprague, Wright.

Committee on Manufactures—Mr. Frelinghuysen, Chairman; Messrs. Morris, Knight Prentiss, Tyler.

Committee on Agriculture—Mr. Brown, Chairman; Messrs. Kent, Swift, Robinson, Morris.

Committee on Military Affairs—Mr. Benton, Chairman; Messrs. Tipton, Preston, King, of Alabama, Clayton.

Committee on Militia—Mr. Robinson Chairman; Messrs. Hendricks, M'Kean, Waggaman, Swift.

Committee on Naval Affairs—Mr. Southard, Chairman; Messrs. Robbins, Tallmadge, Bibb, Black.

Committee on Public Lands—[The Committee on Public Lands of the last session was continued for the present session, by a unanimous vote passed during the last week. The members consist of Messrs. Poindexter, (Chairman,) Moore, Prentiss McKean, and Clay]

Committee on Private Land Claims—Mr. Black, Chairman; Messrs. Kane, Naudain. Porter, Shepley.

Committee on Indian Affairs—Mr. White, Chairman; Messrs. Tipton, Smith, Swift, Frelinghuysen.

Committee on Claims—Mr. Bell, Chairman; Messrs. Tipton, Naudain, Brown, Shepley,

Committee on the Judiciary—Mr. Clayton, Chairman; Messrs. Preston, Bell, Smith. Leigh.

Committee on the Post Office and Post Roads.—[The Committee on the Post Office and Post Roads of the last session was continued for the present session, by a resolution passed unanimously, during the last week. The members consist of Messrs. Grundy, (Chairman) Ewing, Robinson, Knight, Southard.]

Committee on Pensions.—Mr. Tomlinson, Chairman; Messrs. Tallmadge, McKean, Prentiss, Preston.

Committee on Roads and Canals.—Mr. Hendricks, Chairman; Messrs. Kent, Robinson, Robbins, McKean.

Committee on the District of Columbia.—Mr. Tyler, Chairman; Messrs. Kent, Bibb, Southard, Tomlinson.

Committee on Revolutionary Claims.—Mr. Moore, Chairman; Messrs. Smith, White, Leigh. Freelinghuysen.

Committee to Credit and Report the Contingent Expenses of the Senate.—Mr. Knight, Chairman; Messrs. Tomlinson, Morris.

Committee on Engrossed Bills.—M. Shepley, Chairman; Messrs. Robinson, Morris.

HOUSE OF REPRESENTATIVES.

[On Monday last, the following gentlemen were announced as the Select Committee appointed to reorganize the Treasury Department: Messrs. Wayne, Mason, of Virginia, McKennan, Cambreleng, Rencher, Evans, Pope, Jarvis, McKay.

And on Tuesday last, the following gentlemen were announced as the Select Committee on the part of this House on the Death of Lafayette: Messrs. Hubbard, Lincoln, White, Allen, of Virginia, Marshall.

On the same day, the following gentlemen were announced as the Committee on the Destruction of the Treasury Building: Messrs. Gilmer, Archer, Binney, Beardsley, Gorham, Johnson, of Kentucky, Speight, Hubbard, Carr.

Numerous petitions, memorials, and resolutions, were laid before the House: among the former, one from *J. N. Reynolds*, praying that an expedition may be fitted out for surveying the reefs and islands in the Pacific and on the North-West Coast.

To show the importance of the object in view, Mr. Pearce stated thet there were now engaged in the whale fishery 132,000 tons of shipping, that there were employed 10,000 seamen, and that the business, direct and indirect, employed 170,000 tons of shipping, and more than 12,000 seamen; that more than one-tenth part of our whole navigation was engaged in it, and the capital invested was $12,000,000. He further stated that the annual loss of property, upon the islands and reefs not laid down upon any chart, was fully equal to the expense of the expedition and survey request ed.

[*From the Boston Literary Magazine.*]

SUNSET ON THE ALLEGHANY.

I was a pensive pilgrim, at the foot
Of the crowned Alleghany,—when he wrapt
His purple mantle gloriously around,
A id took the homage of the princely hills,
And ancient forests,—as they bowed them down,
Each in his order of nobility.
And then, in glorious pomp, the sun retired
Behind the solemn shadow, and his train
Of crimson, and of azure, and of gold,
Went floating up the zenith, tint on tint,
And ray on ray,—till all the concave caught
His parting benediction.

But the glow
Faded to twilight, and dim twilight sank
In deeper shade,—and there that mountain stood
In awful state, like dread ambassador
'Tween earth and heaven. Methought, it frowned severe
Upon the world beneath, and lifted up
The accuser's forehead sternly toward the sky,
To witness' 'gainst its sins. And is it meet
For thee,—thou raised on cloud-capped pinnacle,
To scorn thine own original, the dust,
That sometimes eddying on the angry winds
Doth sweep thy base!

Say,—is it meet for thee,
Hiding thyself in mystery, to impeach
This nether sphere,—from whence thy rocky root
Draws strength and nutriment?

But lo! a star,
The first fair herald of advancing night,
Doth peer above thy summit,—as some babe
Might gaze with brow of timid innocence
Over a giant's shoulder. Hail, lone star!
Thou friendly watcher o'er an erring world,
Thine uncondemning glance, doth aptly teach
Of that untiring mercy which vouchsafes
Thee light, and man, salvation. Not to mark
And treasure up his follies, or recount
Their secret record in the court of heaven,
Thou com'st. Methinks, thy tenderness would shroud,
With trembling mantle, his infirmities,
The purest natures are most pitiful;
But they who feel corruption strong within,
To launch their darts most fiercely at the trace
Of their own image in another's breast.
Thus the wild bull, that in some mirror spies
His own mad visage, furiously destroys
Th' frail reflector. But thou, stainless star,
Shalt stand a watchman, on Creation's walls,
While race on race their little round shall mark,
And slumber in the tomb. Still point to all
Who through this evening scene may wander on,
And, from yon mountain's proud magnificence,
Turn to thy milder beauty,—point to all,
The eternal love that nightly sends thee forth,
A silent teacher of its sacred lore.

L. H. S.

SURVEYORS' INSTRUMENTS.

☞ Compasses of various sizes and of superior quality warranted.

Leveling instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by E. & G. W. BLUNT, 154 Water street, corner of Maidenlane.

J31 6t

☞ TOWNSEND & DURFEE, of Palmyra, *Manufacturers of Railroad Rope*, having removed their establishment to Hudson, under the name of *Durfee, May & Co.* offer to supply Rope of any required length (without splice) for inclined planes of Railroads at the shortest notice, and deliver them in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, Eng. M. & H. R. R. Co., Albany; or James Archibald, Engineer Hudson and Delaware Canal and Railroad Company, Carbondale, Luzerne county, Pennsylvania.

Hudson, Columbia county, New-York, January 29, 1833.

PATENT HAMMERED SHIP, BOAT, AND RAILROAD SPIKES.

☞ Railroad Spikes of every description required, made at the Albany Spike Factory.

Spikes made at the above Factory are recommended to the public as superior to any thing of the kind now in use.

Ship and Boat Spikes made full size under the head, so as not to admit water.

Orders may be addressed to Messrs. ERASTUS CORNING & CO., Albany, or to THOMAS TURNER, at the Factory, Troy, N. Y. sept. 13 1 y

TO RAILROAD COMPANIES.

☞ The subscriber having erected extensive machinery for the manufacture of the Iron Work for Railroad Cars, and having made arrangements with Mr. Phineas Davis, patentee of the celebrated wire chilled wheels, will enable him to fit up at short notice any number of cars which may be wanted.

The superiority of the above Wheels has been fully tested on the Baltimore and Ohio Railroad, where they have been in constant use for some months past. Having fitted up Wheels for six hundred Cars, the subscriber flatters himself that he can execute orders in the above line to the satisfaction of persons requiring such work. The location of the shop being on the tide-waters of the Chesapeake Bay, will enable him to ship the work to any of the Atlantic ports, on as reasonable terms as can be offered by any person. All orders will be executed with despatch, and the work warranted. When there are but a few setts wanted, the chills and patterns are to be furnished, or the company pay the expense of making the same, and if required, will be sent with the wheels. All Wheels furnished and fitted by the subscriber will have no extra charge on account of the patent right.

Samples of the above Wheels, which have been broken to show their superiority, may be seen at the office of the Railroad Journal; at the Depot of the Boston and Providence Railroad, Boston; and at John Arnold's shop, near the Broad street House, Philadelphia. All orders directed to J. W. & E. PATTERSON, Baltimore, or to the subscriber, Joppa Mills, Little Gunpowder Post-Office, Baltimore county, Maryland, will be attended to. DEAN WALKER. a3

LOCOMOTIVE ENGINES.

☞ THE AMERICAN STEAM CARRIAGE COMPANY, OF PHILADELPHIA, respectfully inform the public, and especially Railroad and Transportation Companies, that they have become sole proprietors of certain improvements in the construction of Locomotive Engines, and other railway carriages, secured to Col. Stephen H. Long, of the United States Engineers, by letters patent from the United States, and that they are prepared to execute any orders for the construction of Locomotive Engines, Tenders, &c. with which they may be favored, and pledge themselves to a punctual compliance with any engagements they may make in reference to this line of business.

They have already in their possession the requisite apparatus for the construction of three classes of engines, viz. engines weighing four, five, and six tons.

The engines made by them will be warranted to travel at the following rates of speed, viz. a six ton engine at a speed of 15 miles per hour; a five ton engine at a speed of 18 miles per hour; a four ton engine at a speed of 22 1-2 miles per hour. Their performance in other respects will be warranted to equal that of the best English engines of the same class, with respect not only to their efficiency in the conveyance of burthens, but to their durability, and the cheapness and facility of their repairs.

The engines will be adapted to the use of anthracite coal, pine wood, coke, or any other fuel hitherto used in locomotive engines.

The terms shall be quite as favorable, and even more moderate, than those on which engines of the same class can be procured from abroad.

All orders for engines, &c. and other communications in reference to the subject, will be addressed to the subscriber, in the city of Philadelphia, and shall receive prompt attention.

By order of the Company,
WILLIAM NORRIS, Secretary.

December 2d, 1833.

Fr further information on this subject see No. 49, pag 772, Vol. 2, of Railroad Journal.

RAILWAY IRON.

☞ Ninety-five tons of 1 inch by ¾ inch, 260 do. 1¼ do. ¾ do., 40 do. 1¼ do. ⅝ do., 800 do. 2 do. ⅝ do., 800 do. 2½ do. ⅝ do. soon expected. *Flat Bars* in lengths of 14 to 15 feet counter sunk holes, ends cut at an angle of 45 degrees with splicing plates, nails to suit.

250 do. of Edge Rails of 36 lbs. per yard, with the requisite chairs, keys and pins.

Wrought Iron Rims of 30, 33, and 36 inches diameter for Wheels of Railway Cars, and of 60 inches diameter for Locomotive wheels

Axles of 2½, 2⅝, 2¾, 3, 3⅛, 3⅜, and 3½ inches diameter for Railway Cars and Locomotives of patent iron.

The above will be sold free of duty, to State Governments and Incorporated Governments, and the Drawback taken in part payment. A. & G. RALSTON.

9 South Front street, Philadelphia.

Models and samples of all the different kinds of Rails, Chairs, Pins, Wedges, Spikes, and Splicing Plates, in use, both in this country and Great Britain, will be exhibited to those disposed to examine them. d71meowr

SURVEYING AND ENGINEERING INSTRUMENTS.

☞ The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely *new*: among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also, a Railroad Goniometer, with two Telescopes—and a Levelling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes. WM. J. YOUNG,

Mathematical Instrument Maker, No. 9 Dock street, Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad, I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to laterial angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,
JAMES P. STABLER, Superintendant of Construction of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors. E. H. GILL, Civil Engineer.

Germantown, February, 1833.

For a year past I have used Instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY R. CAMPBELL, Eng. Philad. Germant. and Norris. Railroad.

m1 1y

THE HISTORY OF LIFE.—By B. Cornwall

Day dawn'd. Within a curtain'd room
Fill'd to faintness with perfume,
A lady lay at point of doom.

Day clos'd. A child had seen the light,
But for the lady, fair and bright,
She rested in undreaming night!

Springs came. The lady's grave was green,
And near it oftentimes was seen,
A gentle boy, with thoughtless mein.

Years fled. He wore a manly face,
And struggled in the world's rough race,
And won at last a lofty place.

And then, he died! Behold before ye.
Humanity's brief sum, and story,
Life, Death, and all that is of—Glory.

FEMININE DECEPTION.—M. de Balzac, one of the most popular of French modern writers, has made some observations upon the fair sex in his new work of "Feragus, Chief of the Devoraus:"

"There are very few women who have not been, once in their lives, exposed to an interrogatory precise, short and cutting; one of those questions made without commiseration by their husbands, the dread of which alone causes a cold shaking fit, and the first word of which strikes the heart like the point of a poniard. From thence the axiom, *Every woman lies*—an officious lie, a venal lie, a sublime lie; a horrible lie; but obliged to lie. This obligation, then, once admitted, is it not essential to lie skilfully? The women, therefore, in France are admirable liars; our manners teach them deceit so well! In short, woman is so ingenuously impatient, so pretty, so graceful, so true in lying, she avows so well its utility to avoid in social life the violent shocks which domestic happiness would not resist, that it is as necessary as the cotton in which they place their pearls. Lying, therefore, becomes the foundation of their language, and truth is nothing more than an exception; they tell it, as they are virtuous, from caprice or speculation; according to their dispositions or tempers, some women laugh in lying, others weep or become serious; some are angry. After having begun in life by feigned insensibility for the homage which delighted them the most, they often end by lying to themselves. Who has not admired their appearance of superiority, when they trembled for the mysterious treasures of their loves? Who has not studied their ease, their facility, their freedom of understanding, under the greatest embarrassments of life? Then, with them, nothing is borrowed; deceit flows as the snow falls from the skies. With what art, too, do they discover the truth in others—with what cunning do they employ the right logic regarding the point in discussion, which always acquires for them some secret of the heart from a man, open enough to proceed with them by interrogation. To question a woman, is it not to give ourselves up to her? Will she not always learn what we wish to hide from her? and in conversing with us, will she not conceal whatever she chooses to keep secret? And yet some men pretend to cope with the women of Paris; with women who can put themselves above the stabs of a poniard, by saying, You are very inquisitive; what does it matter to you? Why do you wish to know it? Ah! you are jealous! and if I did not choose to answer you? In short, with a woman who possesses a hundred thousand different ways of saying No, and innumerable variations for saying Yes."

Opium Trade.—By occasionally visiting the Hercules, one of the receiving ships for opium, I was able to observe, through the kindness of Mr. Parry, her chief officer, how this extensive and lucrative business is conducted. The sales are effected in Canton by the European merchant, and orders sent down with the smuggling boats for the delivery of the opium from the different ships; the boats engaged in this occupation are armed with spears, shields, and even fire-arms, to repel any attack that may be made upon them by the Mandarin guard-boats. They are also manned by a very brave and athletic crew; indeed, Chinese fight very well one against the other, but cannot bring forward sufficient courage to face Europeans, except the advantages are overpowering on their side. These boats are provided with sails, in addition to a number of oars and rowers, and they pass through the water with inconceivable rapidity. The Mandarin boats, having a weaker and less choice crew, can seldom or ever overtake them; this, however, may in part be explained from the fact of the guard-boats, (the revenue-cutters,) sent by the Chinese government to cruize against smugglers, coming alongside for a supply of the prohibited drug, to smuggle it themselves into the heart of the Chinese empire. Any thing can be done by bribery in this country, and these boats are often employed for smuggling cassia, treasure, &c. on board European ships at Lintin, &c.; indeed, every smuggling boat that takes opium from an opium ship leaves a payment of one dollar on each chest for the Mandarins, and on the opium returns being made up, the sum is regularly paid to them: each boat leaves also a kum, shaw, or present for the ship, of five dollars. The chests of the drug are opened on board; the balls or cakes are taken out, and immediately deposited in small mat bags, brought by them for the purpose, and sown up; being in that way more convenient to smuggle than in large heavy chests.—There are three kinds of opium usually sold in the English ships, the Malwa, Benares, and Patna; a fourth, the Turkey opium, is confined to American and other foreign vessels. The Patna opium is in balls, packed in partitioned cases, each chest containing forty balls. Old opium fetches a higher price than new; the former being solid, the latter soft and more liable to run. The old chests, so termed, are usually two years old when they come under that denomination. The Malwa opium is in rather flattened cakes. The prices of this drug of course fluctuate very much; the consumption in the Chinese empire must be enormous, and is entirely (not the least extraordinary part of the affair) carried on by an illicit trade. The payments are usually made, if to any extent, in Sycee silver, which is taken by weight, no silver coinage being acknowledged by the Chinese government. The Chinese purchasers of the opium refine it by boiling, previous to using it for smoking; they use it also in the form of tincture, usually carrying a small bottle containing it about them. The present Emperor of China has been described as being totally incapacitated from any business, through the excess to which he has carried the debilitating practice of opium smoking. —[Bennett's Wandering.]

AGENTS FOR NEW PUBLICATIONS.

HENRY G. WOODHULL, of Wheatland, Monroe county, New York, is agent for the following Publications:

The New York American Daily, at $10.00—Tri-Weekly, at $5.00—Semi-Weekly, at $4.00 in advance.

The American Railroad Journal, Weekly, at $3.00 per annum.

The Mechanics' Magazine, two volumes a year, at $3.00 per annum.

The Quarterly Journal of Agriculture and Mechanics, at $5.00 per annum, or $1.25 per number.

The Family Magazine, 416 pages a year, at $1.50 in advance.

The Monthly Repository and Library of Entertaining Knowledge, of 36 pages a month, at $1.00 in advance, now in the 5th volume, bound volumes $1.25

The Ladies' Companion, of 54 pages a month, at $3.00 per annum, in advance.

The Rochester Gem, at $1.50 in advance.

All Communications addressed to me, at Wheatland, Monroe county, will be promptly attended to. September 19, 1834.
n6v6 Ctf.

ALBANY SEED STORE AND HORTICULTURAL REPOSITORY.

The subscriber having resumed the charge of the above establishment, is now enabled to furnish traders and others with FRESH GARDEN SEEDS, upon very favorable terms, and of the growth of 1833, *warranted* of the best quality.

The greatest care and attention has been bestowed upon the growing and saving of Seeds, and none will be sold at this establishment excepting those raised expressly for it, and by experienced seedsmen; and those kinds imported which cannot be raised to perfection in this country; these are from the best houses in Europe, and may be relied upon as genuine.

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NOTICE TO MANUFACTURERS.

☞ SIMON FAIRMAN, of the village of Lansingburgh, in the county of Rensselaer, and state of New-York, has invented and put in operation a Machine for making Wrought Nails with square points. This machine will make about sixty 6d nails, and about forty 10d nails in a minute, and in the same proportion larger sizes, even to spikes for ships. The nail is hammered and comes from the machine completely heated to redness, that its capacity for being clenched is good and sure. One horse power is sufficient to drive one machine, and may easily be applied where such power for driving machinery is in operation. Said Fairman will make, vend and warrant machines as above, to any persons who may apply for them as soon as they may be made, and on the most reasonable terms. He also desires to sell one half of his patent right for the use of said machines throughout the United States. Any person desiring farther information, or to purchase, will please to call at the machine shop of Mr. John Humphrey, in the village of Lansingburgh.—August 15, 1833. A29 tf RM&F

STEPHENSON,

Builder of a superior style of Passenger Cars for Railroad

No. 264 Elizabeth street, near Bleecker street, New-York.

☞ RAILROAD COMPANIES would do well to examine these Cars; a specimen of which may be seen on that part of the New-York and Harlæm Railroad, now in operation.
J25 tf

RAILROAD CAR WHEELS AND BOXES, AND OTHER RAILROAD CASTINGS.

☞ Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subscribers at Paterson, or 60 Wall street, New-York, will be promptly attended to. Also, CAR SPRINGS.

Also, Flange Tires turned complete.

J8 ROGERS, KETCHUM & GROSVENOR.

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INSTRUMENTS.

SURVEYING AND NAUTICAL INSTRUMENT MANUFACTORY.

☞ EWIN & HEARTTE, at the sign of the Quadrant, No. 53 South street, one door north of the Union Hotel, Baltimore, beg leave to inform their friends and the public, especially Engineers, that they continue to manufacture to order and keep for sale every description of Instruments in the above branches, which they can furnish at the shortest notice, and on fair terms. Instruments repaired with care and promptitude.

For proof of the high estimation on which their Surveying Instruments are held, they respectfully beg leave to tender to the public perusal, the following certificates from gentlemen of distinguished scientific attainments.

To Ewin & Heartte.—Agreeably to your request made some months since, I now offer you my opinion of the Instruments made at your establishment, for the Baltimore and Ohio Railroad Company. This opinion would have been given at a much earlier period, but was intentionally delayed, in order to afford a longer time for the trial of the Instruments, so that I could speak with the greater confidence of their merits, if such they should be found to possess.

It is with much pleasure I can now state that notwithstanding the Instruments in the service procured from our northern cities are considered good, I have a decided preference for those manufactured by you. Of the whole number manufactured for the Department of Construction, to wit; five Levels, and five of the Compasses, not one has required any repairs within the last twelve months, except from the occasional imperfection of a screw, or from accidents, to which all Instruments are liable.

They possess a firmness and stability, and at the same time a neatness and beauty of execution, which reflect much credit on the artists engaged in their construction.

I can with confidence recommend them as being worthy the notice of Companies engaged in Internal Improvements, who may require Instruments of superior workmanship.

JAMES P. STABLER,
Superintendent of Construction of the Baltimore and Ohio Railroad.

I have examined with care several Engineers' instruments of your Manufacture, particularly Spirit levels, and Surveyor's Compasses; and take pleasure in expressing my opinion of the excellence of the workmanship. The parts of the levels appeared well proportioned to secure facility in use, and accuracy and permanency in adjustments.

These instruments seemed to me to possess all the modern improvement of construction, of which so many have been made within these few years; and I have no doubt but they will give every satisfaction when used in the field.

WILLIAM HOWARD, U. S. Civil Engineer.
Baltimore, May 1st, 1833.

To Messrs Ewin and Heartte—As you have asked me to give my opinion of the merits of those instruments of your manufacture which I have either used or examined, I cheerfully state that as far as my opportunities of my becoming aquainted with their qualities have gone, I have great reason to think well of the skill displayed in their construction. The neatness of their workmanship has been the subject of frequent remark by myself, and of the accuracy of their performance I have received satisfactory assurance from others, whose opinion I respect, and who have had them for a considerable time in use. The efforts you have made since your establishment in this city, to relieve us of the necessity of sending elsewhere for what we may want in our line, deserve the unqualified approbation and our warm encouragement. Wishing you all the success which your enterprize so well merits, I remain, yours, &c.

B. H. LATROBE,
Civil Engineer in the service of the Baltimore and Ohio Railroad Company.

A number of other letters are in our possession and might be introduced, but are too lengthy. We should be happy to submit them, upon application, to any person desirous of perusing the same. m24